



India - Africa at CII Exim Bank Conclave

For Prelims: CII EBC, India Africa Trade

For Mains: India Africa Relations and Agreements, Significance of Africa in Indian Economy, Presence of China in Africa, History of India Africa Relations

Why in News?

Recently, at the **17th Confederation of Indian Industry (CII) Exim Bank Conclave on India-Africa Growth Partnership (New Delhi, India)**, India has emphasized upon the need for a trade and investment agreement between [India and Africa](#).

- Earlier, the Indian Vice President visited Senegal and [three MoUs \(Memorandums of Understanding\)](#) for cultural exchange, cooperation in youth matters and visa free regime were signed.

What do we know about the CII EBC on India-Africa Growth Partnership?

- **About:**
 - It was launched in the year **2005** with the support of the **Ministry of External Affairs and the Ministry of Commerce & Industry, Government of India**.
 - It had been rechristened as **“CII EXIM Bank Conclave on India Africa Growth Partnership”** expanding the earlier focus on **“Project Partnership”**.
- **Significance:**
 - The conclave has not only set the ground for many **new cross-border partnerships** to take roots, but also conducted a critical evaluation of the **existing collaborative arrangements** on the basis of which a new roadmap for future Africa partnerships would be designed.
 - It has given **shape to policy** dialogues of the **Government of India, Exim Bank** and the **Industry**.
 - It has encouraged Indian **exporters to access African Countries**.
 - It has provided a **platform** for discussing more than 4430 projects.
 - It has encouraged companies looking for business opportunities beyond Government of India's [Lines of Credit](#).
 - It has facilitated **dialogue with other financial institutions** in the African region, with competitive **credit facilities** to support business efforts by Indian companies.

What is India Emphasizing in relations with Africa?

- India will be able to **offer new technologies** that will help expand **trade, commerce, business, investment & opportunities** for Africa's youth.
- India's development partnership with Africa will be on terms that will be **comfortable to Africa** that will liberate its potential and not constrain its future.
- India's experience with [digital revolution](#) to support Africa's growth, extend [education, health](#), spread [digital literacy](#) and quality infrastructure could be harnessed.

- India's [Startups](#) and digital innovations like [Unified Payments Interface \(UPI\)](#), [Open Network for Digital Commerce \(ONDC\)](#) etc. can benefit Africa immensely.

How has India's relations with Africa been?

- **High Level Visits:**
 - During the last eight years, there has been a stepped up engagement with the continent, recording 36 high level visits from India and more than 100 similar ones from Africa.
- **Loan and Assistance:**
 - India has extended concessional loans of over **USD 12.3 billion to Africa**.
 - In addition, India has granted **USD 700 mn of grant assistance**.
- **Projects:**
 - India has completed 197 projects so far, 65 more are currently under execution and 81 at the pre-execution stage.
 - In **Gambia**, India has constructed the **National Assembly building** and undertaken projects in **water supply**, [agriculture](#) and [food processing](#).
 - In Zambia, India is involved in an important [hydro-power project](#), in the erection of **pre-fabricated health posts** and in the **supply of vehicles**.
 - In **Mauritius**, recent notable projects include the **metro express**, the **new Supreme Court and social housing**.
 - In **Namibia**, a **new Centre of Excellence in IT** has just become operational.
 - Whereas in **South Sudan**, India is focusing on training and education.
- **Covid - 19 Assistance:**
 - 32 African countries received 150 tonnes of medical assistance from India.
 - Many of them also utilized '[Made in India](#)' vaccines received directly or otherwise from India.
 - At international forums, India has worked together to press for equitable and affordable access to vaccines, including through a [TRIPS](#) waiver.
- **Human Resource:**
 - India had announced **50,000 scholarships during [India-Africa Forum Summit \(IAFS\)-III](#)** in 2015, out of which more than 32,000 scholarship slots have already been utilized.
 - To provide high quality [virtual education](#) and medical services to partners, the [e-VidyaBharti](#) and [e-ArogyaBharti](#) networks were launched in 2019 for [tele-education](#) and [tele-medicine](#) respectively.
 - India has helped African countries to promote digital transformation through setting-up of **IT Centres, Science & Technology Parks and [Entrepreneurship Development Centres \(EDC\)](#)**.
- **Help & Relief Assistance:**
 - **Operation Sahayata** to assist [cyclone IDAI](#)-hit **Mozambique** in 2019, [Operation Vanilla](#) to provide relief to flood victims in **Madagascar** in January 2020, the support to **Mauritius** in containing the [oil spill due to the grounding of ship Wakashio](#).
- **Energy:**
 - [The International Solar Alliance](#) is a notable platform that has promoted the rapid development of [clean energy technologies](#).
 - This has been followed by the '[One Sun One World One Grid](#)' initiative to further promote solar and renewable energy.
 - In recent years, **clean and green energy** have been increasingly prominent in India's development programmes in Africa as also in third country collaborations.
- **Trade and Economics:**
 - India's bilateral trade with Africa has now reached USD 89.5 billion in 2021-22 compared with USD 56 bn the previous year.
 - With cumulative investments at USD 73.9 billion from 1996-2021, India is among the top five investors in Africa.
 - Through the **Duty Free Tariff Preference (DFTP)** Scheme that extends duty free access to 98.2% of India's total tariff lines, India has opened its market to African countries.
 - So far 33 LDC African nations have been entitled to get benefits under this scheme.

What are the Opportunities in India Africa Relations?

- **Addressing Food security:**
 - **Agriculture** and [food security](#) can also be a fulcrum for deepening ties.
 - Africa has a major chunk of the **world's arable land but produces a very small percentage of the global agri-output.**
 - India has proven **expertise in the agriculture sector**, being the top producer of much agricultural produce.
- **Combating Neo-Colonialism:**
 - China has been actively pursuing **Chequebook and donation diplomacy in Africa.**
 - However, Chinese investment is seen as **neo-colonial** in nature as it focuses on **money, political influence, hard-infrastructure projects and resource extraction.**
 - India's approach, on the other hand, is one that focuses on **building local capacities and an equal partnership** with Africans and not merely with African elites concerned.
- **Preventing Global Rivalries:**
 - In recent years, several global economic players have **strengthened** their engagement with African states, with an **eye to rising economic opportunities**, including in **energy, [mining](#), infrastructure and connectivity.**

Way Forward

- **Food and Energy Security:**
 - **Food security** and [energy security](#) have come into special focus in the context of the [Ukraine conflict](#).
 - India and Africa can **work together for mutual benefit.**
- **Enabling Strategic Convergence:**
 - Both **India and Japan** share a common interest in forging a partnership for **Africa's development** through the [Asia-Africa Growth corridor](#).
 - In this context, India can **leverage its global status** to establish Africa on the strategic map of global politics.
- **Others:**
 - **Higher education** or **skill development**, building **stronger financial partnerships** or strengthening **value chains** in **agriculture** and **food processing**, all these should be the significant sectors of cooperation between India and Africa.
 - As global engagement in Africa increases, India and Africa can ensure that **Africa does not once again turn into a theatre of rival ambitions.**

[Source: PIB](#)

A Glossary for the Troubled Global Economy

Why in News?

Recently, US' [Inflation](#) hit a record high of 9.1% in June 2022, the highest in 40 years.

- US observers have argued that the **US central bank will not be able to achieve a soft landing** for the economy if the yield curve inverts.
- **Start of reverse currency wars** has also been predicted.

What is Bond Yield Inversion?

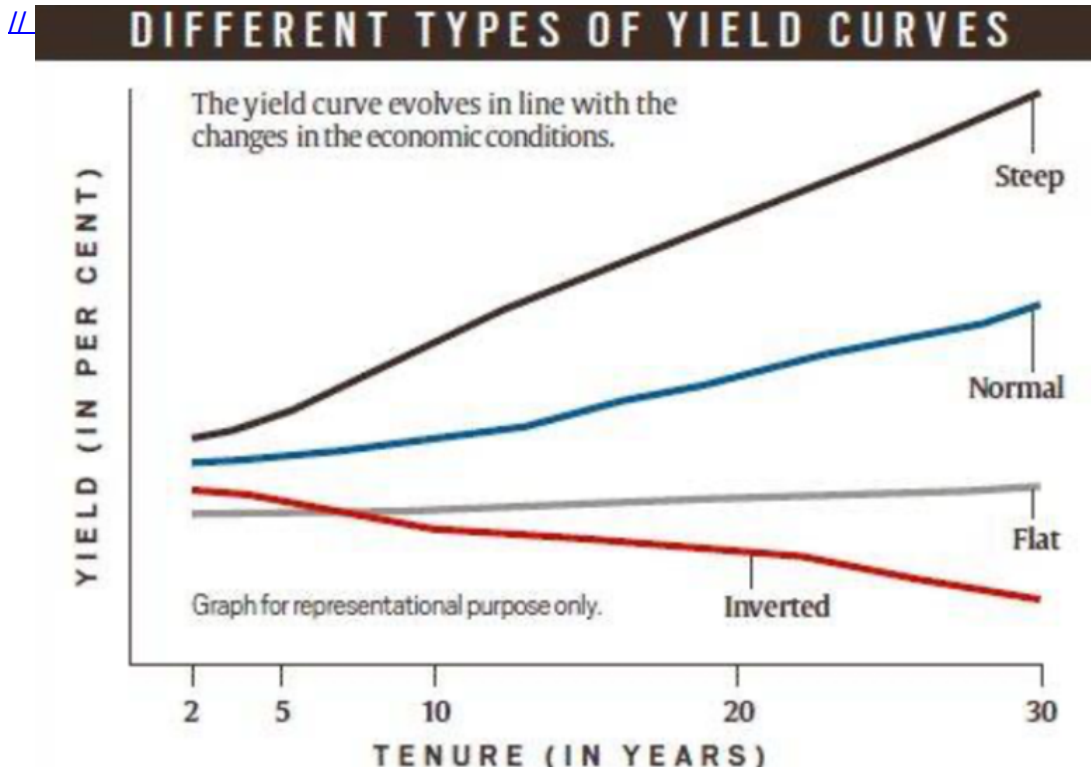
- **Bonds:**
 - [Bonds](#) are essentially an **instrument through which governments** (and also

corporations) **raise money from people.**

- A bond's yield is the **return to an investor from the bond's coupon** (interest) **payments.**
- Typically, **government bond yields** are a good way to understand the **risk-free interest rate** in that economy.

▪ **Yield Curve:**

- The yield curve is the **graphical representation of yields from bonds** (with an equal credit rating) over different time horizons.
- In other words, if one was to take the US government bonds of different tenures and plot them according to the yields they provide, **one would get the yield curve.**



▪ **Bond Yield Inversion:**

◦ **Under Normal Circumstances:**

- **Any economy would have an upward** sloping yield curve.
 - As one lends for a **longer duration** — or as one buys bonds of longer tenure — **one gets higher yields.**
 - If one is **parting with money for a longer duration**, the return should be **higher.**
- When investors feel **confident** about the economy they **pull the money out from long-term bonds** and put it in short-term **riskier assets** such as stock markets.
- In the bond market, the **prices of long-term bonds fall**, and their **yield** (effective interest rate) **rises.**
 - This happens because **bond prices and bond yields are inversely related.**

◦ **Suspicious Circumstances:**

- However, when investors suspect that the economy is heading for trouble, they **pull out money from short-term risky assets** (such as stock markets) and put them in **long-term bonds.**
- This causes the **prices of the long-term bonds to rise and their yields to fall.**

What is Soft-landing?

- The process of **monetary tightening** that the **US Federal Reserve** is currently unveiling involves **not just reducing the money supply but also increasing the cost of money** (that is,

the interest rate).

- The US' Federal Reserve is **doing this to contain soaring inflation**.
- When a central bank is **successful in slowing down the economy** without bringing about a recession, **it is called a soft-landing** — that is, no one gets hurt.
 - But, when the actions of the central bank bring about a **recession**, it is called a **hard-landing**.

What is Reverse Currency Wars?

- A flip side of the US Federal Reserve action of aggressively **raising interest rates is that more and more investors are rushing to invest money in the US**.
 - This, in turn, has made the **dollar become stronger than all the other currencies** as the dollar is more in demand than yen, euro, yuan etc.
- A relative weakness of the local currency of other countries against the dollar makes their **exports more competitive**.
 - For instance, a Chinese or an Indian exporter gets a massive boost.
 - In the past, the US has accused other countries of **manipulating their currency** (and keeping its weaker against the dollar) just to **enjoy a trade surplus against** the US.
 - **This used to be called the currency war.**

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Indian Government Bond Yields are influenced by which of the following? (2021)

1. Actions of the United States Federal Reserve
2. Actions of the Reserve Bank of India
3. Inflation and short-term interest rates

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

Ans: (d)

Explanation:

- Bond is an instrument to borrow money. A bond could be issued by a country's government or by a company to raise funds.
- Bond yield is the return an investor realizes on a bond. The mathematical formula for calculating yield is the annual coupon rate divided by the current market price of the bond.
- Movements in yields depend on trends in interest rates, it can result in capital gains or losses for investors.
- A rise in bond yields in the market will bring the price of the bond down.
- A drop in bond yield would benefit the investor as the price of the bond will rise, generating capital gains.
- Fed tapering is the gradual reduction in the bond buying program of the US Federal Reserve. So, any actions of the United States Federal Reserve impact the bond yield in India. **Hence, 1 is correct.**
- The actions of the RBI plays a crucial role in determining the yield of government bonds. The sovereign yield curve has a special significance for monetary policy in influencing a wide array of interest rates in the economy. **Hence, 2 is correct.**
- Inflation and short-term interest rates also influence the yield of government bonds. **Hence, 3 is correct.**
- **Therefore, option (d) is the correct answer.**

Q. With reference to 'IFC Masala Bonds', sometimes seen in the news, which of the statements given below is/ are correct? (2016)

1. The International Finance Corporation, which offers these bonds, is an arm of the World Bank.
2. They are the rupee-denominated bonds and are a source of debt financing for the public and private sector.

Select the correct answer using the code given below:

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (c)

Explanation:

- The World Bank Group, which is a vital source of financial and technical assistance to developing countries, consists of five distinct yet complementary organizations, viz.,
- International Bank for Reconstruction and Development (IBRD),
- International Development Association (IDA),
- International Finance Corporation (IFC), **hence, statement 1 is correct.**
- Multilateral Investment Guarantee Agency (MIGA),
- International Centre for Settlement of Investment Disputes (ICSID).
- Membership in IFC is open only to member countries of the World Bank. Its board was established in 1956. IFC is owned by 184 member countries, a group that collectively determines the policies. Through a Board of Governors and a Board of Directors, the member countries guide IFC's programs and activities.
- Masala Bonds are rupee-denominated borrowings issued by Indian entities in overseas markets. Masala means 'spices' and the term was used by International Finance Corporation (IFC) to popularise the culture and cuisine of India on foreign platforms. The objective of Masala Bonds is to fund infrastructure projects in India, fuel internal growth via borrowings and internationalize the Indian currency. **Hence, statement 2 is correct.**
- **Therefore, option (c) is the correct answer.**

Source: IE

Minority Status in India

For Prelims: National Minorities Commission Act, 1992, Article 29, Article 30, Article 350(B)

For Mains: Determination of Minorities in India and Related Constitutional Provisions, Issues Related to Minorities

Why in News?

Recently, while hearing a petition, the [Supreme Court](#) has said that the Minority status of religious and

linguistic communities is “**State-dependent**”.

What was the Petition about?

- Petition complains that **followers of [Judaism](#), [Bahaism](#), and [Hinduism](#) are the real minorities** in Ladakh, Mizoram, Lakshadweep, Kashmir, Punjab and the North-East States.
- However, they **cannot establish and administer educational institutions** of their choice because of the **non-identification of ‘minority’ at the State level**.
- Religious communities such as **Hindus here are socially, economically, politically non-dominant and numerically inferior** in several States.

What was the Ruling?

- Every person in India can be a minority in one State or the other.
- A Marathi can be a minority outside his home State e.g., Maharashtra.
- Similarly, a Kannada-speaking person may be in minority in States other than Karnataka.
- Court indicated that **a religious or linguistic community which is a minority in a particular State**, can inherently claim protection and the right to administer and run its **own educational institutions under Articles 29 and 30 of the Constitution**.

Who are the minorities notified by the Government of India?

- Currently, only those communities notified under section 2(c) of the **[NCM \(National Commission for Minorities\) Act, 1992](#)**, by the central government are regarded as minority.
 - Despite the **Supreme Court's 11-judge bench judgment in T.M.A Pai case**, which clearly determined that linguistic and religious minorities must be identified at the state level rather than at the national level, section 2(c) of the National Commission for Minorities (NCM) Act 1992 gave the Centre "unbridled power" to inform minorities.
- **In 1992**, with the enactment of the NCM Act, 1992, the MC became a statutory body and **was renamed as the NCM**.
- **In 1993**, the first Statutory National Commission was set up and five religious communities viz. **The Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities**.
- In 2014, **Jains were also notified** as a minority community.

What are the Constitutional Provisions for Minority?

- **Article 29:**
 - It provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, **shall have the right to conserve the same**.
 - It grants **protection to both religious minorities as well as linguistic minorities**.
 - However, the SC held that the scope of this article is not necessarily restricted to minorities only, as use of the word **‘section of citizens’ in the Article includes minorities as well as the majority**.
- **Article 30:**
 - All minorities shall have the **right to establish and administer educational institutions** of their choice.
 - The protection **under Article 30 is confined only to minorities** (religious or linguistic) and does not extend to any section of citizens (as under Article 29).
- **Article 350-B:**
 - The **[7th Constitutional \(Amendment\) Act 1956](#)** inserted this article which provides for a Special Officer for Linguistic Minorities appointed by the President of India.
 - It would be the duty of the **Special Officer to investigate all matters relating to the safeguards provided for linguistic minorities** under the Constitution.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. In India, if a religious sect/community is given the status of a national minority, what special advantages it is entitled to? (2011)

1. It can establish and administer exclusive educational institutions.
2. The President of India automatically nominates a representative of the community to Lok Sabha.
3. It can derive benefits from the Prime Minister's 15-Point Programme.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (c)

Exp:

- At present Muslims, Sikhs, Buddhists, Jains, Christians, and Parsis (Zoroastrians) are notified as minority religious communities by Gol. There are certain special advantages that these communities are entitled by the Constitution of India as well as various other legislative and administrative measures.
- Article 30 of the Indian Constitution **upholds the right of religious and linguistic minorities to establish and administer educational institutions of their choice.** Hence, statement 1 is correct. **There is no provision for the President of India to automatically nominate a member of a minority religious** community to the Lok Sabha. This provision was earlier available for members of Anglo-Indian community under Article 331 of the Constitution. Hence, statement 2 is not correct.
- Religious minorities can **derive benefits from the Prime Minister's 15-Point Programme.** The programme was launched in 2005 to ensure the welfare of minorities in the fields of education, skill development, employment and prevention of communal conflicts. Hence, statement 3 is correct. Therefore, option (c) is the correct answer.

Source: TH

Pythagorean Geometry in Vedic-Era

For Prelims: Indian Ancient History, Vedic Age, Veda System

For Mains: Significance of Veda System, Significance of Vedic Age

Why in News?

Recently, a position paper by the Karnataka government on the [National Education Policy \(NEP\) 2020](#) has described **Pythagoras's theorem as "fake news"**.

- It has referred to a text called the **Baudhayana Sulbasutra**, in which a specific shloka refers to

the theorem.

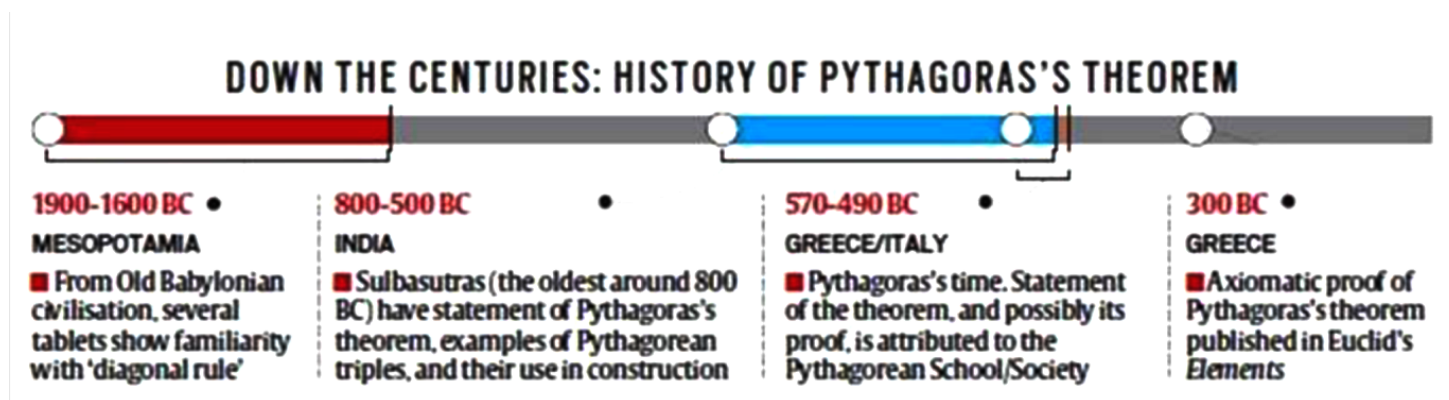
What do we need to know about Pythagoras?

- **About Pythagoras:**
 - Evidence suggests that the **Greek philosopher (around 570–490 BC) did exist.**
 - There is an element of mystery around him, largely because of the **secretive nature of the school/society he founded in Italy.**
 - Relatively little is known about his mathematical achievements, because there is **nothing today of his own writings.**
- **About Pythagoras Theorem:**
 - The Pythagoras theorem describes **the relationship connecting the three sides of a right triangle** (one in which one of the angles is 90°).
 - $a^2 + b^2 = c^2$
 - If any two sides of a right triangle are known, the theorem allows you to calculate the third side.

How do we know that Vedic Indian Mathematicians knew this?

- There are references of Pythagoras in the **Sulbasutras**, which are texts pertaining to **fire rituals (yajanas) performed by Vedic Indians.**
 - The oldest of these is the **Baudhayana Sulbasutra.**
- The period of Baudhayana Sulbasutra is uncertain. It is estimated based on **linguistic and other secondary historical considerations.**
 - In recent literature, **Baudhayana Sulbasutra is taken to be from around 800 BCE.**
- Baudhayana Sulbasutra contains a **statement of what is called Pythagoras theorem** (it was known rather as a geometric fact, and not as a 'theorem').
- The yajna rituals involved construction of **altars (vedi) and fireplaces (agni)** in a variety of shapes such as **isosceles triangles, symmetric trapezia, and rectangles.**
 - The sulbasutras describe **steps towards construction** of these figures with prescribed sizes.

How did the Knowledge of Equation Evolve?



- The earliest evidence is from the **Old Babylonian civilisation** (1900-1600 BCE).
 - They referred to it as the **Diagonal Rule.**
- The earliest evidence of a proof comes from a **period after the sulbasutras.**
- The oldest surviving axiomatic proof of the theorem is in the **Elements of Euclid** from around 300 BCE.

What are Vedas?

- The word **Veda** signifies **knowledge** and the texts are actually about providing **mankind knowledge to conduct their entire life on earth and beyond.**
- There are four major vedas:

- **Rig Veda:**
 - **Oldest** existing veda among the four.
 - Focus is on **worldly prosperity and natural beauty**.
 - Text is organised in 10 books known as **Mandalas**.
 - Prominent gods mentioned in Rig Veda:
 - **Lord Indra, Agni, Varuna, Rudra, Aditya** etc.
- **Yajur Veda:**
 - The name Yaju signifies **Sacrifice**.
 - It concentrates on **rites** and **mantras** of the different types of sacrifices.
 - Two major recensions (samhita) are:
 - **Shukla**, also called **Vajasaneyi Samhita**.
 - **Krishna**, also called **Taittiriya Samhita**.
- **Sama Veda:**
 - It has been named after **Saman** (melody).
 - It concentrates on **Melody** or **Songs**.
 - It is also called the **Book of Chants**.
- **Atharva Veda:**
 - It is also known as **Brahma Veda** and has been attributed to two rishis called **Atharban** and **Angiras**.
 - It concentrates on **Peace** and **Prosperity** of human society.
 - Two major recensions (sakhas) are:
 - **Paippalada**
 - **Saunakiya**

[Source: IE](#)

Renunciation of Indian Citizenship

For Prelims: Citizenship, Indian Diaspora, Global Migration Review

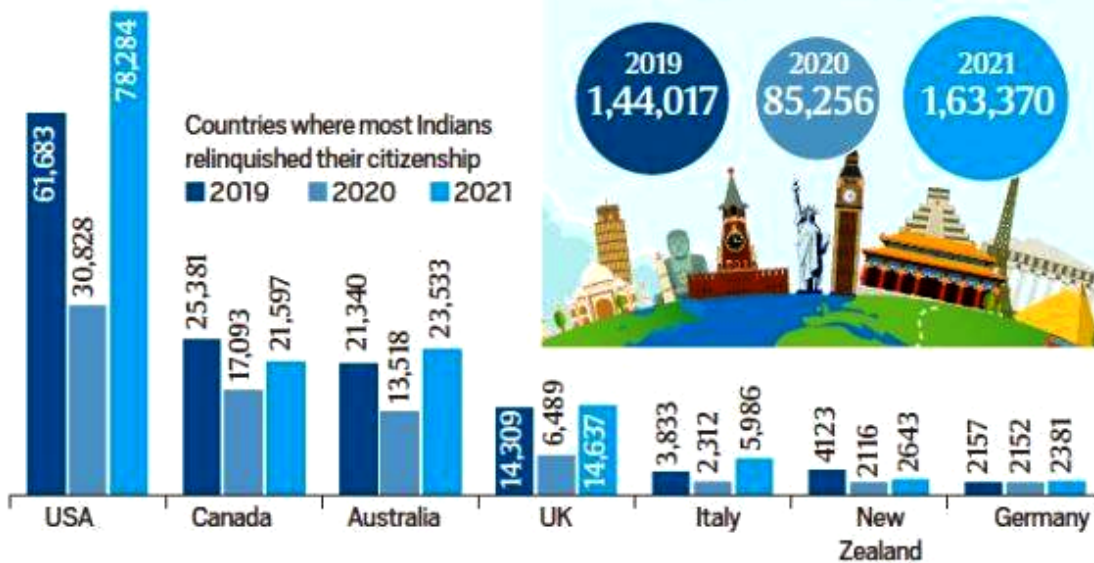
For Mains: Renunciation of Indian Citizenship

Why in News?

The Ministry of Home Affairs stated that **over 1.6 lakh Indians renounced their Indian citizenship** in 2021.

- The numbers marked a sharp increase in comparison to the 85,256 people who gave up their Indian citizenship in the Covid-hit year of 2020, and a somewhat smaller increase over the **1.44 lakh who surrendered their passports in 2019**.

TOP CHOICE FOR INDIANS SETTLING ABROAD: USA



What is Citizenship?

- **Constitutional Provisions:**
 - Citizenship is listed in the [Union List](#) under the **Constitution** and thus is under the **exclusive jurisdiction of Parliament**.
 - The Constitution does not define the term 'citizen' but details of various categories of persons who are entitled to citizenship **are given in [Part 2 \(Articles 5 to 11\)](#)**.
- **Acquisition of Indian Citizenship:**
 - **The Citizenship Act of 1955 prescribes five ways** of acquiring citizenship, viz, birth, descent, registration, naturalisation and incorporation of territory.
- **Citizenship (Amendment) Act, 2019:**
 - The **Act amended the law to fast-track citizenship for religious minorities**, specifically Hindus, Sikhs, Buddhists, Jains, Parsis and Christians, from Afghanistan, Bangladesh and Pakistan who entered India prior to 2015.
 - The requirement for them to stay in India for at least 11 years before applying for Indian citizenship has been reduced to five years.

Why do People Relinquish Citizenship?

- **General:**
 - People **leave their countries for better jobs and living conditions**, and some are pushed out by **climate change** or **unfavourable political situations** at home.
 - **According to a 2020 report by the [Global Wealth Migration Review](#),**
 - High net worth individuals around the world who renounce citizenship acquired at birth may do so for **reasons of rising crime rates or the lack of business opportunities at home**.
 - It can also be a sign of bad things to come as (they) are often the first people to leave — they have the means to leave unlike middle class citizens.
 - Among the other reasons are **safety of women and children**, lifestyle factors like climate and pollution, financial concerns including taxes, better healthcare for families and educational opportunities for children, and **to escape oppressive**

governments.

▪ **India:**

- For India with newer generations holding passports of other countries, **some older Indians are choosing to leave to be with family settled overseas.** In some high-profile cases, people who leave India may be fleeing the law or fear legal action for alleged crimes.
 - The **post-Independence diasporic community has been going (out of India)** for jobs and higher education but the pre-Independence diasporic movement **was completely different, witnessing forced and contractual labour.**
- Since India does not provide dual citizenship, therefore one has to renounce his/her Indian Citizenship **for acquiring citizenship of another country.**
- Countries **where Indians have been migrating for long or where people have family or friends would be more automatic choices,** as would considerations such as easier paperwork and more welcoming social and ethnic environments.

What are the Ways to Renounce Citizenship in India?

▪ **Voluntary Renunciation:**

- If an Indian citizen wishes, who is of full age and capacity, **he can relinquish citizenship of India by his will.**
- When a person relinquishes his citizenship, **every minor child of that person also loses Indian citizenship.** However, when such a child attains the age of 18, he may resume Indian citizenship.

▪ **By Termination:**

- The Constitution of **India provides single citizenship.** It means an Indian person **can only be a citizen of one country at a time.**
- If a person takes the citizenship of another country, **then his Indian citizenship ends automatically.** However, this provision does not apply when India is busy in war.

▪ **Deprivation by Government:**

- The Government of **India may terminate the citizenship of an Indian citizen if;**
 - The citizen has **disrespected the Constitution.**
 - Has obtained citizenship **by fraud.**
 - **The citizen has unlawfully traded or communicated** with the enemy during a war.
 - Within 5 years of registration or naturalisation, **a citizen has been sentenced to 2 years of imprisonment** in any country.
 - The citizen has been living **outside India for 7 years continuously.**

[Source: TH](#)

Green Pit Vipers

Why in News?

Recently, on World Snake Day (16th July, 2022), there was consensus for developing effective antivenom against the venom of the Green Pit Viper.



What are the concerns related to Green Pit Viper?

- Green pit viper is not more lethal than Russell's viper, but the **hemotoxic venom** it injects prevents the blood in the body from clotting resulting in internal bleeding.
- Moreover, the antivenom available in India cannot counter the venom of the green pit viper.
 - There are among 15 venomous snakes like the monocled cobra, the banded krait, the lesser black krait, the great black krait, the mountain pit viper and the redneck keelback out of 64 recorded so far across Northeast India.
- Most of the snakebite cases in the region involve different species of the **green pit viper, making up the other venomous snakes.**
- There is lack of standardised reporting or under-reporting of snake bites.
 - The current available data say **there are more than 1.4 million cases resulting in 1,25,000 fatalities annually.**

What do we Know about Pit Viper?

- Pit viper, **any species of viper (subfamily Crotalinae)** that has, in addition to two movable fangs, a heat-sensitive pit organ between each eye and nostril which together help it accurately aim its strike at its warm-blooded prey.
- Pit vipers are **found from deserts to rainforests.**
- They may be **terrestrial, arboreal, or aquatic.** Some species lay eggs; others produce live young.
- The **venomous pit vipers species** includes hump-nosed pit viper, Mangrove pit viper and Malabar Pit Viper.
- Russell's Viper and Saw-scaled Viper are two most venomous vipers species found in India and member of big four poisonous and deadliest snakes in India.
 - These snake species are responsible for the majority of snake bites in India.

[Source: TH](#)

Why in News?

Recently, Prime Minister unveiled 'SPRINT Challenges' during Naval Innovation and Indigenisation Organisation (NIIO) seminar 'Swavlamban'.

- **'SPRINT (Supporting Pole-Vaulting in R&D through [IDEX](#), NIIO and TDAC) Challenges'** is aimed at giving a boost to the usage of indigenous technology in [Indian Navy](#).

What is the Importance of Self Reliance in Defense?

- The defence sector was identified as an important area with many opportunities for self-reliance because it is **one of the critical sectors of the Indian economy** and also from the strategic point of view.
- It has the **potential for tremendous growth** because of the large, talented pool of skill sets in human resources and large-scale modernisation requirements of the Indian Armed Forces.
- The defence sector will strengthen the economy **by generating employment opportunities and saving the exchequer** by reducing the import burden.
 - The size of the Defence Industry, including the Aerospace and Naval Shipbuilding Industry was estimated at **Rs 85,000 Cr (2020-21)**.
- The ongoing [Russia-Ukraine Conflict](#) has too emerged the importance of self-reliance. A strong and well-equipped military **renders a country immunity to any external and internal risk**.
 - With active participation of the private sector, [MSMEs](#) and [start-ups](#), innovation in the defense sector is being promoted through several projects under the [IDEX initiative](#) and **'Technology Development Fund'**.
 - Technology Development Fund (TDF) has been established to promote self-reliance in defence technology as a part of the ['Make in India' initiative](#).
 - Indian Navy has **developed necessary capabilities** to not only safeguard India's maritime interests, but also of its friendly countries in line with the vision of ['Security and Growth for all in the Region' \(SAGAR\)](#).

What is Naval Innovation and Indigenisation Organisation?

- **Launch:**
 - **Launched in 2020** by the Ministry of Defence to fulfil its requirements relating to technology.
- **Objective:**
 - To foster innovation and indigenisation for self-reliance in defence in keeping with the vision of [Atmanirbhar Bharat](#).
 - It will put in place **dedicated structures for the end-users to interact with academia and industry**.
- **Structure:** The NIIO is a **three-tiered organisation**.
 - **Naval Technology Acceleration Council (N-TAC)** will bring together the twin aspects of innovation and indigenisation and provide apex level directives.
 - Working group under the **N-TAC** will implement the projects.
 - **Technology Development Acceleration Cell (TDAC)** has been created for induction of emerging disruptive technology in an accelerated time frame.

What are the Other Related Initiatives?

- [First Negative Indigenisation](#)
- [Positive Indigenisation List](#)
- [New FDI Policy in Defence Sector](#)
- [Defence Acquisition Procedure 2020](#)
- [Defence Industrial Corridors](#)
- [Defence Innovation Organisation](#)
- [Defence India Start-Up Challenge](#)

INS Sindhudhvaj

Why in News?

Recently, the Indian Navy decommissioned its Kilo class Submarine, INS Sindhudhvaj from its service at Vishakapatnam after 35 years of service.

- With its decommissioned Navy has left with only 15 conventional submarines in service.



What are the Key Highlights about INS Sindhudhvaj?

- **About:**
 - It was commissioned into the [Indian Navy](#) in June 1987.
 - It was one of the 10 **Kilo-class submarines**, India acquired from Russia between 1986 and 2000.
 - It had many firsts to her credit including operationalization of the **indigenized sonar USHUS, Indigenised Satellite Communication systems Rukmani and MSS, Inertial Navigation System, and Indigenised Torpedo Fire Control System.**
 - It also successfully undertook mating and personnel transfer with **Deep Submergence Rescue Vessel.**
 - It was the **only submarine awarded the CNS Rolling trophy for Innovation** by the Prime Minister.

What is the Present scenario?

- With its decommissioning Navy's sub-surface fleet now includes seven Russian Kilo-class submarines, four German HDW submarines, four French Scorpene submarines, and the indigenous nuclear ballistic missile submarine **INS Arihant.**
- Further, the last two of the Scorpene class submarines are in various stages of trials and outfitting.
- There are efforts being implemented like the construction of six advanced submarines under [Project-75I](#) but it has been delayed.
 - Project-75I envisages the **indigenous construction of submarines equipped with the state-of-the-art [Air Independent Propulsion system](#)** at an estimated cost of **Rs. 43,000 crores.**

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Consider the following in respect of Indian Ocean Naval Symposium (IONS): (2017)

1. Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.
2. IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: B

EXP:

- The 'Indian Ocean Naval Symposium (IONS) is a voluntary initiative that seeks to increase maritime cooperation among navies of the littoral States of the Indian Ocean Region by providing an open and inclusive forum for discussion of regionally relevant maritime issues. Hence, statement 2 is correct.
- It provides a forum to increase maritime security cooperation, and promote friendly relationships among the member nations.
- The inaugural IONS-2008 was held in New Delhi, India in February, 2008. **The Chief of the Naval Staff, Indian Navy was designated as the Chairman of IONS for the period 2008-10. Hence, statement 1 is not correct. Therefore, option (b) is the correct answer.**

[Source: TH](#)

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