



FATF's Grey List

For Prelims: FATF, G7, OECD, European Commission, Gulf Cooperation Council

For Mains: Money Laundering, India and its neighbourhood, Important international institutions

Why in News?

Recently, Pakistan got a reprieve from the [Financial Action Task Force \(FATF\)](#) as FATF announced that the country could be removed from the grey list. FATF is expected to decide whether to take Pakistan off the 'grey' list at the end of its plenary session in Berlin in October.

- Pakistan has been on the FATF grey list continuously since June 2018.

What is the Financial Action Task Force (FATF)?

▪ About:

- The FATF is an **inter-governmental body** that sets international standards seeking to prevent **international financial crimes that aid terrorism**.
- The FATF was **established** in July 1989 by a [G-7 Summit in Paris](#), initially to examine and develop measures to combat money laundering.

▪ Mandate:

- After the 9/11 attacks, the FATF in October 2001 expanded its mandate to incorporate efforts to **combat terrorist financing**.
- In April 2012, it added efforts to **counter the financing of proliferation of weapons of mass destruction**.
- The FATF has developed the **FATF Recommendations, or FATF Standards**, which ensure a **co-ordinated global response to prevent organised crime, corruption and terrorism**.
 - **Over 200 jurisdictions** around the world have **committed to the FATF Recommendations** through the global network of nine FATF-Style Regional Bodies (FSRBs) and FATF memberships.

▪ Composition:

- The FATF currently comprises **37 member jurisdictions** and two regional organizations ([European Commission](#) and [Gulf Cooperation Council](#)), representing most major financial centers in all parts of the globe.
 - **India** has been a **member of the FATF since 2010**.
 - **India** is also a member of its regional partners, the [Asia Pacific Group \(APG\)](#) and [the Eurasian Group \(EAG\)](#).

▪ Headquarters:

- Its Secretariat is located at the [Organisation for Economic Cooperation and Development \(OECD\)](#) headquarters in Paris.

▪ Lists under FATF:

◦ Grey List:

- Countries that are considered **safe haven for supporting terror funding and money laundering** are put in the **FATF grey list**.

- This inclusion serves as a warning to the country that it may enter the blacklist.
- **Black List:**
 - Countries known as **Non-Cooperative Countries or Territories (NCCTs)** are put in the **blacklist**. These countries support **terror funding and money laundering activities**.
 - The FATF revises the blacklist regularly, adding or deleting entries.
 - Currently, **Iran and Democratic People's Republic of Korea (DPRK)** are under High-risk Jurisdiction or black list.
- **Sessions:**
 - The **FATF Plenary is the decision-making body** of the FATF.
 - It meets **three times per year**.

What is the grey list, and why is Pakistan on it?

- **About:**
 - **Grey listing** means **FATF has placed a country under increased monitoring to check its progress on measures** against **money laundering and terrorism financing**.
 - The **“grey list”** is also known as the **“increased monitoring list”**.
- **Countries in Grey List:**
 - As of March 2022, there are 23 countries on the FATF’s increased monitoring list — officially referred to as **“jurisdictions with strategic deficiencies”** — that include **Pakistan, Syria, Turkey, Myanmar, Philippines, South Sudan, Uganda, and Yemen**.
- **Removal from the List:**
 - To be pulled out of the grey list, **a country** has to **fulfill the tasks recommended by the FATF**, for instance, confiscating properties of individuals associated with terrorist groups.
 - If the FATF is satisfied with the progress, it removes the country from the list.
 - The FATF most recently took **Zimbabwe**, and before that **Botswana and Mauritius, off the grey list**.
 - Zimbabwe has strengthened the effectiveness of its AML/CFT regime and addressed related technical deficiencies to meet the commitments in its action plan regarding the strategic deficiencies that the FATF identified in October 2019.
 - **AML/CFT** refers to **“Anti-Money Laundering/Combating the Financing of Terrorism”**.
 - In the case of Pakistan, it first entered the list in 2008, left it, and then was on it from 2012 to 2015. Since 2018, it has not been removed from the list.
 - The FATF had issued the 27-point action plan after placing Pakistan on the ‘Grey List’ in June 2018. The action plan pertains to curbing money laundering and terror financing. A parallel action plan was handed out by the FATF’s regional partner - the Asia Pacific Group (APG) - in 2019.

How does grey-listing impact a country?

- If a country is on grey list, it signals to the **global financial and banking system about increased risks in transactions with the country** in question.
- Also, given that major financial institutions like the **IMF** and **World Bank** are affiliated with FATF as observers, a grey-listed country faces **complications in accessing international lending instruments**.
 - One instance is of a USD 6 billion IMF loan contract from July 2019 that emphasized the need for Pakistan to comply with the FATF’s action.
 - Pakistan’s economy **is in poor shape**, and it is staring at low reserves of foreign exchanges, despite loan assistance from Saudi Arabia and China.

Source: IE

WEB 5.0

For Prelims: Web 5.0, Blockchain Technology

For Mains: Web 5.0, IT and Computers

Why in News?

Former Twitter CEO Jack Dorsey recently announced his vision for a new **decentralized web platform** that is being called **Web 5.0** and is being built with an aim to return **“ownership of data and identity” to individuals**. It's being developed by former Twitter CEO Bitcoin business unit, **The Block Head**.

- The World Wide Web (WWW) is the primary tool used by billions of people to interact with other people and also read and write information.
- Web is the largest transformable-information construct that its idea was introduced by Tim Berners-Lee in 1989 at first. Much progress has been made about the web and related technologies in the past two decades.

What are the Key Highlights of Various Web Version?

- **Web 1.0**, is the **first generation** of the global digital communications network. It is often referred to as the **“read-only”** Internet made of **static web pages that only allow for passive engagement**.
- **Web 2.0**, The next stage in the evolution of the web was the **“read and write”** Internet. Users could now **communicate with servers and other users leading to the creation of the social web**. This is the world wide web that **we use today**.
- **Web 3.0**, is an **evolving term** that is used to refer to the **next generation of the Internet** - a **“read-write-execute”** web - with **decentralization as its bedrock**.
 - It speaks about a digital world, built by **leveraging blockchain technology**, where people are able to interact with each other **without the need for an intermediary**.
 - It will be **driven by Artificial Intelligence and machine learning where machines can interpret information like humans**.
- **Web 5.0:**
 - It's in an early nascent stage as being developed by Dorsey's Bitcoin business unit, **The Block Head (TBH)**. Web 5.0 is aimed at **“building an extra decentralized web that puts one in control of ones's data and identity”**.
 - Web 5.0 is **Web 2.0 plus Web 3.0** that will **allow users to ‘own their identity on the Internet and ‘control their data’**.
 - Both Web 3.0 and Web 5.0 envision an Internet **without the threat of censorship - from governments or big tech, and without fear of significant outages**.
 - **Significance:** It's about changing the **“control of identity”** of an individual and talks about giving users **control over their own data**, it cites an example that it's totally up to the user whether to save his data anonymously encrypted on the decentralized blockchain or to sell that data to vendors for monetizing and advertising.

WEB 1.0	WEB 2.0	WEB 3.0
1996 – 2004	2004 -2016	2016+
The Hypertext Web	The Social Web	The Semantic Web
Tim Berners Lee	Tim O'Reilly, Dale Dougherty	Tim Berners Lee
Read Only	Read and Write Web	Executable Web
Millions of User	Billions of User	Trillions+ of Users
Echo System	Participation and Interaction	Understanding self
One Directional	Bi-Directional	Multi-user Virtual environment
Companies Publish Content	People Publish Content	People build application though which people interact and publish content.
Static content.	Dynamic content.	Web 3.0 is curiously undefined. AI and 3D, The web learning
Personal Websites	Blog and Social Profile	SemiBlog, Haystack.
Message Board	Community portals	Semantic Forums
Buddy List, Address Book	Online Social networks.	Semantic Social Information

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What are the Challenges Related to Web 5.0?

- There are hardly any implications for this technology in the near future as it's just being an idea at a very early stage, and nobody knows how it would be turned out.
- How the sovereign government would allow this decentralized platform which is free from any government intervention, could lead to **contention between the government and promoters of Web 5.0.**
- There is still **uncertainty**, that how the system will operate, who would control it, and what are **safety scenarios** for vulnerable people like women, children, etc.

Way Forward

- There is a need for a proper **blueprint & policy** from both the government and the promoter side.
- The **efficacy in the real-world** needs to be tested.
- The need for the **safety of personal data and utmost priority should be given to individual privacy.**
- It should not become another tool for venture capitalists to control the platform for their own gains, and further makes a mockery of the political system.
- The **regulation body** should be set up by the government to overlook these types of new and emerging technologies.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With reference to “Blockchain Technology”, consider the following statements: (2020)

1. It is a public ledger that everyone can inspect, but which no single user controls.
2. The structure and design of blockchain is such that all the data in it are about cryptocurrency only.
3. Applications that depend on basic features of blockchain can be developed without anybody’s permission.

Which of the statements given above is/are correct?

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

Ans: (d)

Exp:

- Blockchain is a form of public ledger, which is a series (or chain) of blocks on which transaction details are recorded and stored on a public database after suitable authentication and verification by the designated network participants. A public ledger can be viewed but cannot be controlled by any single user. **Hence, statement 1 is correct.**

[Source-IE](#)

Ban of Wheat Export from India

For Prelims: Wheat, Director General of foreign Trade (DGFT), FCI

For Mains: Rising Inflation and issues, Growth & Development, Government Steps to Tackle Inflation

Why in News?

Recently the [United Arab Emirates \(UAE\)](#) **suspended re-export of wheat and flour from grain originating in India** is basically an assurance that whatever it imports will be used only for domestic consumption.

- The development comes a month after India banned wheat exports to meet the demand of its domestic market, neighbouring countries and vulnerable nations.
- UAE's Ministry of Economy explained that this decision comes in view of the international developments that have affected trade flows and in appreciation of the solid and strategic relations that bind the UAE and India, especially after the signing of the [Comprehensive Economic Partnership Agreement](#) between the two countries and the Indian government's approval to **export wheat to the UAE for domestic consumption**.

What is the Status of Wheat Export of India?

- **India** is the **world's second-biggest wheat producer** after China. But it accounts for less than 1% of the global wheat trade. It keeps a lot of it to provide subsidised food for the poor.
- Its **top export markets** are Bangladesh, Nepal and Sri Lanka - as well as the United Arab Emirates (UAE).
- **Reasons for Banning of Export of Wheat:**
 - India has **suspended the export of wheat effective 13 May 2022**. In a notification published in the government gazette, the [Directorate General of Foreign Trade \(DGFT\)](#) justified the ban by giving reasons that soaring global wheat prices have put pressure on food security, not only in India, but also in neighbouring and vulnerable nations.
 - However, export will be allowed on the basis of permission granted by the Government of India to other countries to meet their food security needs and based on the request of their governments.
 - The **ban was also prompted decrease in wheat production, after its production was affected by a heatwave** that swept across the country during March-April, while the [Food Corporation of India \(FCI\)](#) was unable to mop up ample stocks for buffer stocks.
 - **The rising inflation also prompted this step.** The [WholeSale Price Index \(WPI\)](#) in India has moved up from 2.26 per cent at the start of 2022 to 14.55 now. Retail inflation, too, hit an eight-year high of 7.79 per cent in April, driven by rising food and fuel prices.

What will be the Impact of India's Ban on Wheat Export?

- **Impact on India:**
 - The impact of the wheat export ban on India's domestic food inflation is likely to be muted. This export ban is a pre-emptive step and may prevent local wheat prices from rising substantially.
 - However, with domestic wheat production likely limited by the heatwave, local wheat prices may not moderate materially.
- **Impact on the World:**
 - The [Ukraine-Russia war](#) has led to a **slump in wheat production** from a region known as the **world's bread basket**. Russia and Ukraine together account for 25% of the world's wheat exports. It has led to hike in prices of wheat and supply side glitches.
 - India is the world's second largest wheat producer and one of its biggest consumers. When the government decided to ban wheat exports in the face of climbing prices, there were many protests from the international community.
 - **In Asia, except for Australia and India, most other economies depend on imported wheat** for domestic consumption and are at risk from higher wheat prices globally, even if they do not directly import from India.
 - This recent export ban will drive prices across the globe and will **hit the poor consumers in Africa and Asia**

What is the Significance of Wheat Exports for India?

- **Net Forex Earner:** It would help India to bring down languishing stock of wheat in FCI's Godowns and provide the opportunity of capturing foreign markets by increasing exports.
 - The increase in export will lead to increase in [forex reserves](#) and decrease of [Current Account Deficit \(CAD\)](#) of India.
- **Goodwill Image of India:** India by exporting wheat to needy and vulnerable countries can

strengthen its ties with countries with whom it had see-saw relations and will help to normalise the ties.

- **Diverse Opportunities:** The opportunities included the export of food grain such as wheat and the possibility of manufactured goods being exported to destinations for which supplies had become unreliable.
- **Cost Competitiveness:** While there has been a surge in global prices, India's wheat rates are relatively competitive.
- **Diversify Export Basket:** It will help India to have trade relations with those countries with whom it had negligible or low trade.

Way Forward

- Although the step taken by India is on the basis of genuine grounds of ensuring food security and stabilising domestic prices but needs to communicate it to the world in the same way, otherwise it will lead to loss of India's prestige in world politics and will malign its image.
- India should ensure that the food security of the vulnerable and neighbouring countries should not get hampered, otherwise it will lead to tensions in diplomatic ties.

What are the key Points related to Wheat?

- **About:**
 - **This** is the **second most important cereal crop in India after rice.**
 - It is the main food crop, in north and north-western part of the country.
 - Wheat is a **rabi crop** that requires a cool growing season and bright sunshine at the time of ripening.
 - Success of the Green Revolution contributed to the growth of Rabi crops, especially wheat.
 - Macro Management Mode of Agriculture, **National Food Security Mission** and Rashtriya Krishi Vikas Yojana are few government initiatives to support wheat cultivation.
- **Temperature:** Between 10-15°C (Sowing time) and 21-26°C (Ripening & Harvesting) with bright sunlight.
- **Rainfall:** Around 75-100 cm.
- **Soil Type:** Well-drained fertile loamy and clayey loamy (Ganga-Satluj plains and black soil region of the Deccan).
- **Top Wheat Producing States:** Uttar Pradesh > Punjab > Haryana > Madhya Pradesh > Rajasthan > Bihar > Gujarat.

UPSC Civil Services, Previous year Questions (PYQ)

Q. Consider the following crops:

1. Cotton
2. Groundnut
3. Rice
4. Wheat

Which of these are Kharif crops?

- A. 1 and 3
- B. 2 and 3
- C. 1, 2 and 3
- D. 2, 3 and 4

Ans: C

Exp:

- India has three cropping seasons i.e., Rabi, Kharif and Zaid. Rabi crops are sown in winter from October to December and harvested in summer from April to June.
- Kharif crops are grown with the onset of monsoon in different parts of the country and these are harvested in September-October.
- In between the Rabi and the Kharif seasons, there is a short season during the summer months known as the Zaid season. Some of the crops produced during 'Zaid' are watermelon, muskmelon, cucumber, vegetables and fodder crops.
- **Kharif Crops: Rice, Maize, Sorghum, Pearl Millet or Bajra, Finger Millet or Ragi (cereals), Arhar (pulses), Soyabean, Groundnut (oilseeds), Cotton, etc. Hence, 1, 2 and 3 are correct.**
- **Rabi Crops: Wheat, Barley, Oats (cereals), Chickpea, Gram (pulses), Linseed, Mustard (oilseeds), etc. Hence, 4 is not correct.**
- **Therefore, option (c) is the correct answer.**

[Source:IE](#)

Barents Sea Warming

For Prelims: Barents Sea, Atlantification, Global Warming, Jet Streams

For Mains: Climate Change and Conservation

Why in News?

According to a study, it is stated that parts of the Arctic region near Norway are warming at as much as seven times the rate of warming in the rest of the world.

- The region around the **northern Barents Sea** has been warming **two to two-and-a-half times the average warming of the Arctic region** and **five to seven times the warming in the rest of the world.**
- Such intense warming has never been observed in the Arctic region before. This is leading to the phenomenon of **Atlantification.**



Where is Barents Sea?

- The **Barents Sea** borders the **Norwegian and Greenland Sea in the west, the Arctic Sea in the north and the Kara Sea in the east.**
- The Barents Sea is divided between **Russia and Norway** as defined by the [United Nations Convention on the Law of the Sea \(UNCLOS\)](#).

What is Atlantification?

- Scientists have discovered **'hotspots'** where some parts of the **Barents Sea** have started to closely **resemble the Atlantic**. This phenomenon has been termed **Atlantification**.
- The **north-flowing ocean currents** transport the warm waters of the **Atlantic into the Arctic Ocean through the Barents Sea**.
 - Unlike the Atlantic and Pacific, the upper waters of the Eurasian Arctic Ocean get warmer as they get deeper.
 - The top of the ocean is typically covered by sea ice. Below this is a layer of cool freshwater, followed by a deeper layer of warmer, saltier water delivered to the Arctic from the Atlantic by [ocean currents](#).
- According to NASA data, the total area covered by sea ice in this region has fallen by almost half since satellite records began in the early 1980s.
- One possible reason for this is that, when sea ice melts through the summer, it replenishes the freshwater layer that sits above the warmer Atlantic layer. With less sea ice around, the amount of freshwater dwindles, this, in turn, causes the ocean to mix together, drawing more Atlantic heat up

towards the surface. This “Atlantification” can, in turn, cause more ice to melt from below.

- **Human-caused global climate change** has been accelerating the **Atlantification** process and this will in turn significantly affect the weather patterns, ocean circulations, and the entire Arctic ecosystem.

What will be the Consequences of the Warming?

- **More extreme weather:**
 - The exceptional warming of the Arctic could lead to **more extreme weather in North America, Europe and Asia.**
 - The **Arctic** is the **fastest warming region in the world** with estimates ranging from two to four times the rate of warming in the rest of the world.
 - The reason for this is a **closed loop of melting sea ice and faster warming.**
- **Melting of More Ice:**
 - As the Arctic region warms, the sea ice melts and exposes the ocean surface below. The surface absorbs more energy than sea ice would have and enhances the warming, making **more sea ice melt, forming a feedback loop.**
- **First Recorded Rainfall at Summit Station Greenland:**
 - The rapid warming of the Arctic region has already thrown up weird weather such as the **first recorded rainfall at the Summit Station of Greenland** in August 2021 and back-to-back storms in July.
- **Increase in Lightning strikes:**
 - **Lightning strikes**, which were once rare in the region, **have increased by eight times** in the last decade.
 - **Storms and lightning strikes** usually **don't form in the region** as they **need heat for the convection system to form.**
 - But rapid warming is now making heat available.
- **Impact on Marine Ecosystem:**
 - The warming of the region since the 1980s has resulted in the **northward shift and increase in abundance of Atlantic fish species** and a **decrease** in the abundance of **Arctic fish species**
- **Extreme Snowfall:**
 - The warming of the Barents Sea also led to an extreme snowfall event, often dubbed as the **'Beast from the East'**, across most of Europe in 2018.
 - Around **140 gigatonnes of water** evaporated from the Barents Sea and contributed **88% of the snow** that fell across Europe during the event.
- **Extreme Weather Events:**
 - The **extreme weather events** south of the Arctic are linked to the region's warming through **the Arctic jet stream.**
 - The **jet stream** is a band of winds flowing on top of the Arctic region that usually keeps the cold Arctic air within the region.
 - But excessive and rapid warming is causing this **jet stream to become wavier** due to which, the cold air is interacting more frequently with the warm air from the lower latitudes, leading to **extreme weather events.**
 - In India the Arctic warming has been linked to the **sweltering heatwaves in March, April, May and June** across most of northwest, central and some parts of eastern India in 2022.
 - In 2018, the warming northern polar region had also been linked to the unusual and **deadly dust storms** that killed around 500 people across north India.

Way Forward

- As Arctic Sea ice is a barometer for the health of the global environment, all countries need to support and commit to meaningful climate action such as **COP 21** to reduce global temperature.
- The **Arctic Council** should seriously focus more on dealing with issues such as global warming, melting sea ice, plastic pollution and black carbon.
- Support companies and politicians who are leading the charge towards a new low-carbon future.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. The scientific view is that the increase in global temperature should not exceed 2°C above preindustrial level. If the global temperature increases beyond 3°C above the pre-industrial level, what can be its possible impact/impacts on the world? (2014)

1. Terrestrial biosphere tends toward a net carbon source.
2. Widespread coral mortality will occur.
3. All the global wetlands will permanently disappear.
4. Cultivation of cereals will not be possible anywhere in the world.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Ans: (b)

Exp:

- Temperature rise above 3°C would lead to rising sea levels and loss of plant species. The Amazon rainforest, whose plants produce 10% of the world's terrestrial photosynthesis, may turn to savannah as drought and mega-fires would destroy the rainforest, turning trees back into CO₂ as they burn or rot and decompose.
- The carbon released by the forest destruction will be joined by still more carbon from the world's soils, together, boosting global temperatures by a further 1.5°C. Hence, 1 is correct.
- Increase in global temperature will result in mass coral bleaching and further, addition of CO₂ into the ocean will reduce calcification rates and increase coral mortality. Hence, 2 is correct.
- Wetland habitat responses to climate change and the implications for restoration will be realised differently on a regional and global level. Thus, it can be restored and will not disappear permanently. Hence, 3 is not correct.
- Climate change affects the ecosystem that provides food, and therefore our security of food is linked to the security of those ecosystems.
 - Rising carbon dioxide concentrations - could increase production of some crops, such as rice, soybean and wheat due to increase in the rate of photosynthesis.
 - However, the changing climate would affect the length and quality of the growing season. Thus, the cultivation of cereals would see difference in production rather than being extinct. Hence, 4 is not correct.
- Therefore, option (b) is the correct answer.

Source: DTE

World Day to Combat Desertification and Droughts

For Prelims: World Day to Combat Desertification and Droughts, UNCCD, Forest Stewardship Council, Forest Stewardship Standard for India.


For Mains: Issue of Desertification and land degradation and steps to deal with the issue.

Why in News?

World Day to Combat Desertification and Drought is observed every year on 17th of June.

- On this day, Ministry of Environment, Forest and Climate Change (MoEF&CC) organized **Desertification and Drought Day**.
 - The Union Minister released **Forest Stewardship Council's Forest Stewardship Standard for India (FSC FSSI)**.
 - FSC is a globally recognized certification system which sets criteria for audit of companies associated with timber related products.

What are the Key Highlights of World Day to Combat Desertification and Droughts?

- **About:**
 - It is a unique moment to remind everyone that land degradation neutrality is achievable through problem-solving, strong community involvement and cooperation at all levels.
 - **This Year's Theme:**
 - **Rising up from drought together.**
 - It emphasizes the need for early action to avoid disastrous consequences for humanity and the planetary ecosystems.
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- **Significance:**
 - Desertification, along with climate change and the loss of biodiversity, were identified as the greatest challenges to sustainable development during the **1992 Rio Earth Summit**.
 - Two years later, in 1994, the **General Assembly established the [United Nations Convention to Combat Desertification \(UNCCD\)](#)**, the sole legally binding international agreement linking environment and development to sustainable land management, and declared **17 June "World Day to Combat Desertification and Drought"**.
 - Later on, in 2007, the UN General Assembly declared **2010-2020 the United Nations Decade for Deserts and the fight against Desertification** to mobilize global action to fight land degradation, led again by the UNCCD Secretariat.

What is Desertification?

- Degradation of land in arid, semi-arid and dry sub-humid areas. It is caused primarily by human activities and climatic variations.
- It does not refer to the expansion of existing deserts. It occurs because dryland ecosystems - which cover over one third of the world's land area, are extremely vulnerable to overexploitation and inappropriate land use.
- Additionally, poverty, political instability, deforestation, overgrazing and bad irrigation practices can all undermine the productivity of the land.

What is Drought?

- Drought is generally considered as a deficiency in rainfall /precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people.

- Drought can also be caused due to forest fires, making the soil unsuitable for cultivation and making the soil water deficit.
- Land degradation in addition to Climate change results in increase in droughts.

What is the Status of Desertification and Droughts?

- The number and duration of droughts has increased by 29% since 2000, as compared to the two previous decades (World Meteorological Organization 2021).
- 55M get effected every year due to droughts and by the year 2050, three-fourth population will get affected.
- 2.3 billion people already face water stress. More and more of us will be living in areas with extreme water shortages, including an estimated one in four children by 2040 ([United Nations International Children's Emergency Fund](#)). No country is immune to drought (UN-Water 2021).

How to Tackle it?

- Need for accelerated Reforestation and tree generation.
- **Water management** — saving, reuse of treated water, rainwater harvesting, desalination, or direct use of seawater for salt-loving plants.
- Buttressing the soil through sand fences, windbreaks etc.
- Need for enriched and hyper fertilization of soil.
- **Farmer Managed Natural Regeneration (FMNR)**, enabling native sprouting tree growth through selective pruning of shrub shoots. The residue from pruned tress can be used to provide mulching for fields thus increasing soil water retention and reducing evaporation.

What is United Nations Convention to Combat Desertification (UNCCD)?

- Established in 1994, it is sole legally binding international agreement linking environment and development to sustainable land management.
- It addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.
- The Convention's 197 parties work together to improve the living conditions for people in drylands, to maintain and restore land and soil productivity, and to mitigate the effects of drought.
- It is particularly committed to a bottom-up approach, encouraging the participation of local people in combating desertification and land degradation. The UNCCD secretariat facilitates cooperation between developed and developing countries, particularly around knowledge and technology transfer for sustainable land management.
- The Dynamics of land, climate and biodiversity are intimately connected, to meet these complex challenges with an integrated approach and the best possible use of natural resources. The UNCCD collaborates closely with the other two Rio Conventions:
 - The Convention on Biological Diversity (CBD)
 - The United Nations Framework Convention on Climate Change (UNFCCC)
- **UNCCD 2018-2030 Strategic Framework:**
 - It is the most comprehensive global commitment to achieve Land Degradation Neutrality (LDN) in order to restore the productivity of vast expanses of degraded land, improve the livelihoods of more than 1.3 billion people, and reduce the impacts of drought on vulnerable populations to build.
- **UNCCD and Sustainable Development:**
 - **Goal 15 of Sustainable Development Goals (SDG), 2030** declares that “we are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations”.

What are the other Related Initiatives?

- **National Initiatives:**
 - **[Integrated Watershed Management Programme:](#)**
 - It aims to restore ecological balance by harnessing, conserving and developing degraded natural resources with the creation of Rural Employment.
 - **Desert Development Programme:**
 - launched in 1995 to minimize the adverse effect of drought and to rejuvenate the natural resource base of the identified desert areas.
 - **[National Mission on Green India:](#)**
 - It was approved in 2014 with the objective of protecting, restoring and enhancing India's diminishing forest cover with a deadline of 10 years.
- **Global Initiatives:**
 - **Bonn Challenge:**
 - The Bonn Challenge is a global effort to bring 150 million hectares of the world's deforested and degraded land into restoration by 2020, and 350 million hectares by 2030.
 - At the UNFCCC Conference of the Parties (COP) 2015 in Paris, India also joined the voluntary Bonn Challenge pledge to bring into restoration 21 million hectares of degraded and deforested land by the year 2030.
 - The target now revised to restore 26 million hectares of degraded and deforested land by 2030.

[Source: PIB](#)

World Crocodile Day

For Prelims: World Crocodile Day, IUCN List of Threatened Species, CITES, Wildlife Protection Act, 1972

For Mains: Crocodylian Species in India and Conservation Efforts

Why in News?

[World Crocodile Day](#) is celebrated on **17th June**. The day is a global awareness campaign to highlight the plight of endangered crocodiles and alligators around the world.

What are the Crocodylian Species in India?

- **Mugger or Marsh Crocodile:**



◦ **Description:**

- The [mugger](#) is an egg-laying and hole-nesting species.
- The mugger is also known to be dangerous.

◦ **Habitat:**

- It is mainly restricted to the Indian subcontinent where it may be found in a number of freshwater habitat types including rivers, lakes and marshes. However, it can even be found in coastal saltwater lagoons and estuaries.
- It is already **extinct in Bhutan and Myanmar.**

◦ **Threats:**

- Habitat destruction, fragmentation, and transformation, fishing activities and use of crocodile parts for medicinal purposes.

◦ **Protection Status:**

- [IUCN List of Threatened Species](#): Vulnerable
- [CITES](#): Appendix I
- [Wildlife Protection Act, 1972](#): Schedule I

▪ **Estuarine or Saltwater Crocodile:**



◦ **Description:**

- It is considered as the Earth's largest living crocodile species.
- The [estuarine crocodile](#) is infamous globally as a known man-eater.

◦ **Habitat:**

- It is found in Odisha's [Bhitarkanika National Park](#), the [Sundarbans](#) in West Bengal and the Andamans and Nicobar Islands.
- It is also found across Southeast Asia and northern Australia.

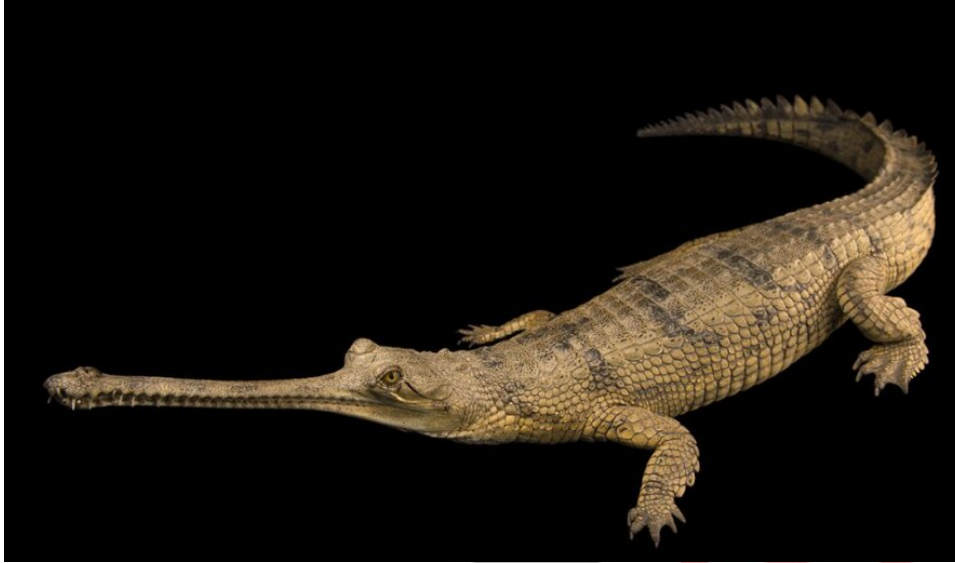
◦ **Threats:**

- Illegal hunting, habitat loss, and antipathy toward the species because of its reputation as a man-eater continue to put pressure on the population.

- **Protection Status:**

- **IUCN List of Threatened Species:** Least Concern
- **CITES :** Appendix I (except the populations of Australia, Indonesia and Papua New Guinea, which are included in Appendix II).
- **Wildlife Protection Act, 1972 :** Schedule I

- **Gharial:**



- **Description:**

- **Gharials**, sometimes called gavials, are a type of Asian crocodylian distinguished by their long, thin snouts which resembles a pot (ghara in Hindi).
- The **population of Gharials are a good indicator of clean river water.**
- The gharial is known to be a relatively harmless, fish-eating species.

- **Habitat:**

- The gharials are **mostly found in fresh waters of the himalayan rivers.**
- The chambal **river in the northern slopes of the Vindhya mountains** (Madhya Pradesh) is known as the primary habitat of gharials.
- Other himalayan rivers like ghagra, gandak river, Girwa river, Ramganga river and the Sone river are secondary habitats for gharials.

- **Threats:**

- Illegal sand mining, poaching, increased river pollution, dam construction, massive-scale fishing operations and floods.

- **Protection Status:**

- **IUCN List of Threatened Species:** Critically Endangered
- **CITES:** Appendix I
- **Wildlife Protection Act, 1972:** Schedule I

What are the Reasons and Solutions of Human-Crocodile Conflict?

- **Reasons:**

- An **encroachment of humans on the river banks and marshy areas** with an increased urbanisation is one of the foremost reasons for increasing human-crocodile conflict in these areas.

- **Hotspots:**

- Vadodara in Gujarat, Kota in Rajasthan, Bhitarkanika in Odisha and the Andaman and Nicobar Islands are **considered as the human-crocodile conflict hotspots in India.**

- **Possible Solutions:**

- Considering the importance of crocodiles **in maintaining the balance in the ecosystem**, raising awareness among local people with the possible relocation of crocodiles are some of the feasible options for the protection of the species.

What are the Crocodile Conservation Efforts?

- Odisha has announced a cash award of Rs. 1,000 to conserve gharials in [Mahanadi River Basin](#).
- The Crocodile Conservation Project was launched in 1975 in different States.

Way Forward

- Transboundary cooperation **is very much possible and needed in south Asia**.
- There should be **information exchange wherever there is transboundary movement of animals**.
- Crocodile exclusion enclosures should be installed at water bodies that they inhabit.
- Nuisance-causing crocodiles **should be identified and captured by training and equipping a 'crocodile squad'** for rapid response. A proper guide should be formulated for the **capture and translocation of large and problematic (nuisance) crocodiles**.
- There is a need to utilize manpower, modern technology and funds to conduct a proper survey to find the real time status of the crocodile population in the country.
- It can be done through geo-tagging the animals so that their movements can be monitored to prevent human-crocodile conflicts.

[Source: DTE](#)

Holy Relics of Lord Buddha

Why in News?

Four Holy Relics of Lord Buddha are being taken from India to Mongolia for an 11-day exposition to coincide with Mongolian [Buddha Purnima](#) celebrations.

- These relics are to be displayed at the **Batsagaan Temple in Gandan Monastery complex in Ulaanbaatar**.
- The four relics come from among 22 Buddha relics, currently housed at Delhi's National Museum.
 - Together, they are known as the **'Kapilvastu Relics'** since they are from a site in Bihar believed to be the ancient city of Kapilvastu. The site was discovered in 1898.
- **Relics** are sacred objects associated with holy individuals.
 - They may be literal body parts (teeth, hair, bones) or objects which the holy person used or touched.
 - In many traditions, relics are believed to have special powers to heal, grant favors, or exorcise demons.

What are the Sacred Relics of Buddha?

- At the **age of 80**, according to Buddhist beliefs, **Buddha attained salvation in Uttar Pradesh's Kushinagar** district.
- The **Mallas of Kushinagar** cremated his body with ceremonies befitting a universal king.
- **His relics** from the funeral pyre were collected and divided into **eight shares** to be distributed among the **Ajathasatrus of Magadha, the Licchavis of Vaishali, the Sakyas of Kapilavastu, Mallas of Kushinagar, Bullies of Allakappa, the Mallas of Pava, the Koliyas of Ramagrama and a Brahmana of Vethadipa**.
- The purpose was **to erect stupas over the sacred relics**.
 - **Two more stupas came up - one over the urn** in which the relics had been collected and the **other over the embers**.
 - **Stupas** erected over the **bodily relics of Buddha (Saririka stupas)** are the earliest surviving Buddhist shrines.
 - **Ashoka** (272-232 BC) opened up seven of these eight stupas, and collected major portions

of the relics for enshrinement within 84,000 stupas built by him in an effort to popularize Buddhism as well as the cult of the stupas.

How are the Kapilavastu Relics Discovered?

- The discovery of an **inscribed casket in 1898** at the stupa site in **Piprahwa** (near UP's Siddharthnagar) helped identify the place with the ancient Kapilavastu.
- The inscription on the casket's lid refers to the relics of **Buddha and his community, the Sakya**.
- A further excavation of the stupa by the Archaeological Survey of India in 1971-77 brought to light **two more steatite relic caskets**, containing a total of 22 sacred bone relics, which are now under the care of the National Museum.
- This was followed by the discovery of more than 40 terracotta sealings from different levels and spots in the eastern monastery at Piprahwa, establishing that Piprahwa was the ancient Kapilavastu.

What is the Security for Travel to Mongolia?

- During the 11-day visit, the relics will be accorded the status of a '**state guest**' in Mongolia and will be taken again at the National Museum, India.
- For the visit, the Indian Air force has made available a special airplane, C-17 **GlobeMaster**, which is among the biggest aircraft available in India.
- In 2015, the **Holy Relics** were placed under the '**AA**' category of [Antiquities and Art Treasures](#) which should not be ordinarily taken out of the country for exhibition, considering their delicate nature.

Gautam Buddha

- He was born as **Siddhartha Gautama** in circa **563 BCE**, in a royal family in **Lumbini** which is situated near the **Indo-Nepal border**.
- His family belonged to the Sakya clan which ruled from **Kapilvastu**, Lumbini.
- At the age of 29, Gautama left home and rejected his life of riches and **embraced a lifestyle of asceticism** or extreme self-discipline.
- After 49 consecutive days of meditation, Gautam attained Bodhi (**enlightenment**) under a pipal tree at **Bodhgaya, Bihar**.
- Buddha gave his **first sermon** in the village of **Sarnath**, near **Varanasi** in Uttar Pradesh. This event is known as Dharma Chakra Pravartana (**turning of the wheel of law**).
- He **died at the age of 80 in 483 BCE** at **Kushinagara**, Uttar Pradesh. The event is known as **Mahaparinibban or Mahaparinirvana**.
- He is believed to be the **eighth** of the ten incarnations of Lord Vishnu (Dashavatar).

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Some Buddhist rock-cut caves are called Chaityas, while the others are called Viharas. What is the difference between the two? (2013)

- (a) Vihara is a place of worship, while Chaitya is the dwelling place of the monks
- (b) Chaitya is a place of worship, while Vihara is the dwelling place of the monks
- (c) Chaitya is the stupa at the far end of the cave, while Vihara is the hall axial to it
- (d) There is no material difference between the two

Ans: (b)

Exp:

- 'Vihara' is the Sanskrit and Pali term for a Buddhist monastery. It originally means 'a secluded place to walk', and referred to 'dwellings' used by wandering monks during the rainy season.
- A Chaitya is a Buddhist shrine or prayer hall with a Stupa at one end. In modern texts on Indian architecture, the term 'Chaitya-Griha' is often used to denote an assembly or prayer hall that houses a Stupa.
- Therefore, option (b) is the correct answer.

[Source: IE](#)

UNMESHA

Why in News?

The **Ministry of Culture** and [Sahitya Akademi](#) are organizing **Unmesha**, an **International Literature Festival** in Shimla as part of [Azadi ka Amrit Mahotsav](#) celebrations, with the support of the Department of Art and Culture, Government of Himachal Pradesh.

- With over 425 writers, poets, translators, critics and distinguished personalities from various walks of life from 15 countries including India, representing over 60 languages and 64 events, UNMESHA is the **largest literature festival in the country**.

What is Sahitya Akademi?

- The Sahitya Akademi was formally inaugurated by the Government of India on 12th March, 1954.
- Though it was set up by the Government, the Akademi functions as an **autonomous organisation**. It was **registered as a society** in January 1956, under the Societies Registration Act, 1860.
- Sahitya Akademi, **India's National Academy of Letters**, is the central institution for literary dialogue, publication and promotion in the country and the **only institution that undertakes literary activities in 24 Indian languages, including English**.
- Akademi **gives 24 awards annually** to literary works in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India, both after a year-long process of scrutiny, discussion and selection.
- It also undertakes **literary exchange programmes with various countries** across the globe to promote Indian literature.
- The Sahitya Akademi **award is the second-highest literary honour** by the Government of India, after the [Jnanpith award](#).

[Source: PIB](#)
