DAILY CURRENT AFFAIRS 10-05-2024

GS-1

1. **Chithirai festival**
2. **Kutch Ajrakh**

GS-2

3. **Tactical nuclear weapons**
4. **The amount India received in remittance in 2022**

GS-3

5. **What is carbon farming?**

Chithirai festival

Syllabus: GS-1: Indian Art and Culture–Fairs and Festivals.

Context:

- *Thousands of worshipers gathered at the Vaigai river bed in Madurai for the yearly ceremony of Lord Kallazhagar immersing in the river as a component of the Chithirai festival.*

About Chithirai Festival

- *The Chithirai Festival in Madurai commemorates* **the divine union of Lord Sunderswarar (LordShiva) and Goddess Meenakshi, revered as Lord Vishnu's sister**.
- *Also known as Chithirai Thiruvizha, Meenakshi Thirukalyanam, or Meenakshi Kalyanam, the festival occurs at the onset of April or the Tamil month Chithirai.*
- *Commencement: The festival begins with the hoisting of a flag (Kodi Yetram) at the Meenakshi Sundareswarar Temple.*
- *The 'kodimaram' (flag pole) adorned with vibrant flowers serves as the focal point for this ritual.*
- *Lord Kallazhagaris revered as Goddess Meenakshi's brother, believed to be an avatar of*
- *Lord Vishnu.*
- *Culmination: The concluding days of the festival are marked by festivities at the Kallazhagar Temple, nestled in the Alagar Hills of Madurai.*
- *Festival Celebrations: The procession features traditional Tamil dance forms such as Kolattam.*
- *This 15-day extravaganza fosters unity between the two major Hindu sects, Shaivites and Vaishnavites, followers of Shiva and Vishnu respectively.*

Meenakshi Temple of Madurai

- *Location: Situated on the* **southern bank of the Vaigai River in Madurai**, *Tamil Nadu, the Arulmigu Meenakshi Sundareswarar Temple stands as a significant historic Hindu sanctuary.*
- *Presiding Deity: The temple venerates goddess Meenakshi, an embodiment of Shakti/Parvati, alongside her consort Shiva depicted as Sundareshwarar.*

Vaigai River

- *Source: Originating from the* **Varushanad Hills in western TamilNadu**.

- *River Course: Initially traverses northeastward through the Kambam and Varushanad valleys before meeting the Palk Strait, which delineates the southeastern coast of Indiafrom Sri Lanka.*
- **Tributaries: Siruliar, Theniar, Varaha Nadi, and Mangalar**

Kutch Ajrakh

Syllabus: GS-1; Art and Culture

Context

- **The Controller General of Patents, Designs, and Trademarks (CGPDTM)** *has awarded the renowned Geographical Indication (GI) certificate to the traditional craftspeople of 'Kutch Ajrakh', recognizing Gujarat's rich cultural history.*
- *This outstanding achievement honors the delicate textile technique that has been profoundly ingrained in the colorful region of Kutch for millennia.*

The Art Of Ajrakh

- *Ajrakh is a* **textile craft** *with a millennia-long history in Gujarati culture, particularly in Sindh, Barmer, and Kutch.*
- *Ajrakh is a painstaking process of hand-block printing on treated cotton cloth, resulting in elaborate motifs imbued with rich symbolism and history.*
- *The term "Ajrakh" is derived from the word* **"Azrak," which means indigo, a well-known chemical commonly used as a strong dye to give a bluish look**.
- *Traditionally, Ajrakh prints were made of three colors: blue to depict the sky, red to represent the land and fire, and white to symbolize the stars.*

Uniqueness

- *Ajrakh textiles are created by a rigorous procedure in which the* **fabric is washed eight times.**
- *The fabrics are dyed with vegetable and mineral pigments, assuring their brilliant colors and durability.*

Background

- *The* **Sind Muslims introduced the art of Ajrakh**, *which has been practiced in the Kutch region for almost 400 years.*
- *This technique is profoundly ingrained in the region's cultural fabric, with nomadic pastoralist and agricultural populations such as the* **Rabaris, Maldharis, and Ahirs** *wearing Ajrakh-printed cloth as turbans, lungis, or stoles.*

Tactical nuclear weapons

Syllabus: GS-2: Tactical Weapons – International Relations.

Context:

- *Russia to practice tactical nuclear weapon scenario to deter West.*

What are Tactical nuclear weapons?

- **Tactical nuclear weapons** *(TNWs) or non-strategic nuclear weapons (NSNWs) are designed for military use on the battlefield or in proximity to friendly forces.*
- *They are* **smaller in explosive power** *compared to strategic nuclear weapons.*
- *TNWs are* **intended for use against military targets** *such as bases, troops, or equipment on or near the battlefield.*

- *In contrast, strategic nuclear weapons target enemy infrastructure, cities, or industrial centers far from the battlefield.*
- *As of 2024,* **tactical nuclear weapons** *have never been used in warfare.*
- *Tactical nuclear weapons* **encompass a variety of delivery systems** *including gravity bombs, short-range missiles, artillery shells, land mines, depth charges, and torpedoes, all equipped with nuclear warheads.*
- *This category also includes* **nuclear-armed surface-to-air missiles** *(SAMs) and air-to-air missiles, as well as portable devices like the Special Atomic Demolition Munition and the Davy Crockett recoilless rifle.*
- *These weapons are designed for use on the battlefield to target enemy forces, infrastructure, or chokepoints such as tunnels, mountain passes, and viaducts.*
- *There's* **no precise definition of "tactical" in terms of range or yield**, *but generally, tactical nuclear weapons have lower yields than strategic ones, although some can have significant power.*
- *For example, the W89 200-kiloton warhead could be used in* **both tactical and strategic roles,** *demonstrating the overlap between the two categories.*
- *Modern tactical nuclear warheads can have yields* **ranging from tens to hundreds of kilotons,** *several times more powerful than those used in Hiroshima and Nagasaki.*

The amount India received in remittance in 2022

Syllabus: GS-2: Indian Diaspora – their role in economic development.

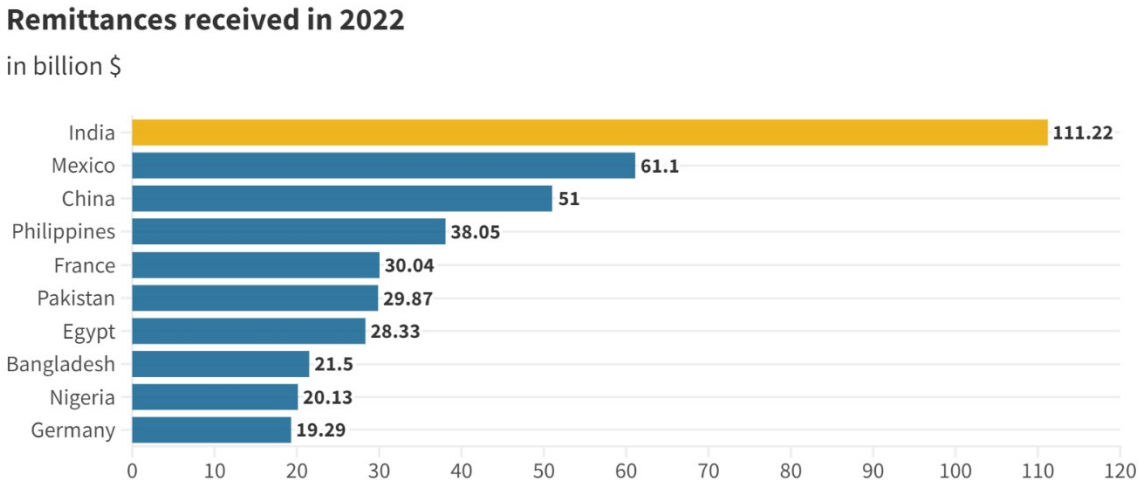
Context:

- *India received over $111 billion in remittances in 2022, first country to ever reach that figure: U.N.*

Major findings of the report:

- *India received* **over $111 billion in remittances in 2022**, *making it the largest recipient globally.*
- *This marked the first time any country surpassed* **the $100 billion mark in remittances**.
- *The International Organisation for Migration (IOM) released these findings in their* **World Migration Report 2024.**
- *Alongside India, the top remittance recipients in 2022 were* **Mexico, China, the Philippines, and France.**

- **Mexico was the second-largest recipient**, *a position it also held in 2021, overtaking China.*
- *Historically, China had been the second-largest recipient after India.*
- *India has consistently* **been a top remittance recipient**, *leading in 2010, 2015, and 2020 as well.*
- *Remittances to India* **crossed $100 billion for the first time**, *reaching $111.22 billion in 2022.*



- *India came in* **13th as the destination country** *for immigrants, with 4.48 million.*
- *India — United Arab Emirates, India — U.S., India — Saudi Arabia and Bangladesh — India were among the top 10 international* **country-to-country migration corridors**.

Internationally mobile students:

- *Asia is the main source of* **internationally mobile students** *worldwide.*
- **China has the highest number** *of internationally mobile students, followed by India.*
- *The US is the* **top destination for international students**, *followed by the UK, Australia, Germany, and Canada.*
- *China is also a* **significant destination for international students**, *especially from countries like the Republic of Korea, Thailand, Pakistan, and India.*
- *There are* **more female than male international migrants** *in countries like the US, Canada, France, Spain, Italy, and India.*
- **India has a slightly higher share of female immigrants** *compared to males, while countries like India, Bangladesh, and Pakistan have a higher proportion of male emigrants.*
- **Irregular migration to the US,** *especially from atypical origin countries, is a major policy challenge.*

- *The* **pandemic severely affected both internal and international** *Indian emigrant workers, particularly low-skilled emigrants.*
- *Loss of jobs, wage theft, and lack of social security during the* **pandemic led many Indian migrants into debt and insecurity.**
- *The pandemic* **significantly impacted internal labor migration patterns** *in India, with a decline in blue-collar workforce mobility towards cities.*
- *The* **International Organization for Migration** *(IOM) has been producing world migration reports every two years since 2000.*

Practice Question

Q. Analyzing the Role of Indian Diaspora in Socio-Economic Development: A Focus on Remittance Patterns. (10 marks, 150 words)

What is carbon farming?

Syllabus: GS-3; Agriculture

Context

- *In March, this year, Valencia, Spain hosted the* **European Carbon Farming Summit**.
- *It was in response to calls for environmentally sound farming as the world's environmental problems, particularly climate change, evidently became severe.*

About

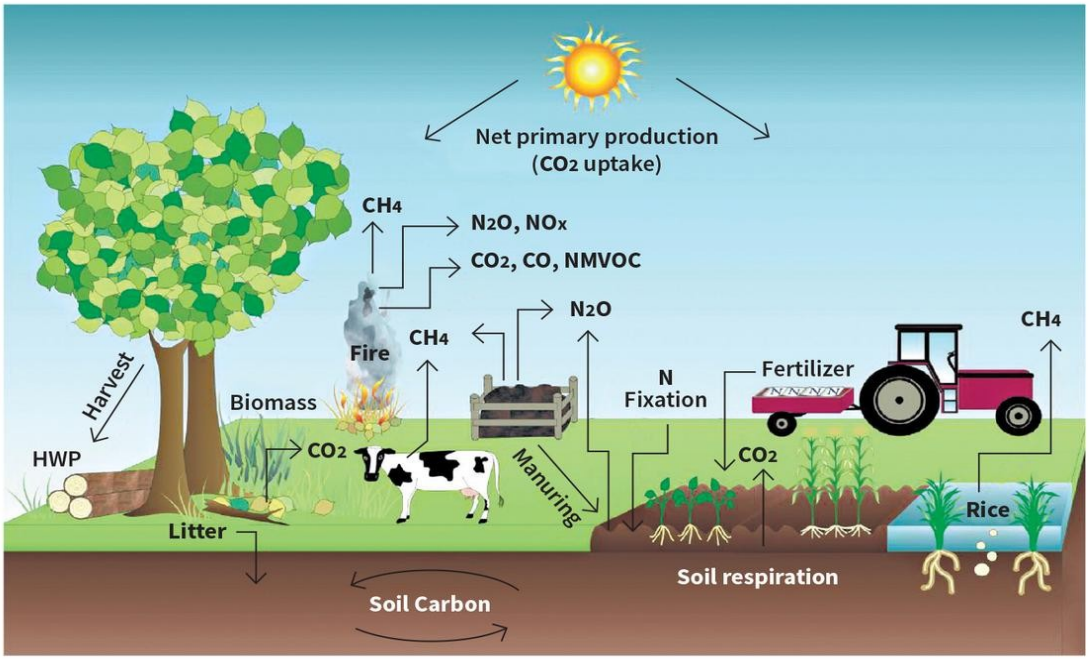
- *Carbon is found in all living organisms and many minerals.*
- *It is fundamental to life on earth and plays a crucial role in various processes, including photosynthesis, respiration, and the carbon cycle.*
- *Farming is the practice of cultivating land, raising crops, and/or livestock for food, fibre, fuel, or other resources.*
- *It encompasses a wide range of activities, from planting and harvesting crops to managing livestock and maintaining agricultural infrastructure.*
- *Carbon farming* **combines these two concepts by implementing regenerative agricultural practices that restore ecosystem health while improving agricultural productivity and soil health, and mitigating climate change by enhancing carbon storage in agricultural landscapes and reducing greenhouse gas emissions.**
- *The practice is easy to adopt across various agro-climatic zones.*

- *It can also help ameliorate soil degradation, water scarcity, and challenges related to climate variability.*

How can carbon farming help?

- *A simple implementation of carbon farming is* **rotational grazing.**
- *Others include agroforestry, conservation agriculture, integrated nutrient management, agro-ecology, livestock management, and land restoration.*
- **Agroforestry practices** — *including silvopasture and alley cropping — can further diversify farm income by sequestering carbon in trees and shrubs.*
- **Conservation agriculture** *techniques such as zero tillage, crop rotation, cover cropping, and crop residue management (stubble retention and composting) can help minimise soil disturbance and enhance organic content, particularly in places with other intense agricultural activities.*

The process of emitting and removing greenhouse gas emissions in managed farmland



Source: 'Carbon farming – Making agriculture fit for 2030', a study for the European Parliament's committee on Environment, Public Health and Food Safety

- *Integrated nutrient management practices promote soil fertility and reduce emissions by using organic fertilizers and compost.*
- *Agro-ecological approaches such as crop diversification and intercropping have benefits for ecosystem resilience.*

- *Livestock management strategies including rotational grazing, optimising feed quality, and managing animal waste can reduce methane emissions and increase the amount of carbon stored away in pasture lands.*

What are the challenges to carbon farming?

- *While carbon farming does offer numerous benefits, its effectiveness varies depending on multiple factors* — **geographical location, soil type, crop selection, water availability, biodiversity, and farm size and scale.**
- *Its usefulness also depends on* **land management practices, sufficient policy support, and community engagement.**
- *Regions with long growing seasons, sufficient rainfall, and substantial irrigation are best suited to practise carbon farming because they provide the best conditions in which to sequester carbon, through vegetation growth.*
- *In regions with adequate rainfall and fertile soil, the potential for carbon sequestration through practices like agroforestry (integrating trees and shrubs with crops) and conservation agriculture (minimising soil disturbance) may be particularly high.*
- *On the other hand, carbon farming can be challenging in* **hot and dry areas** *where the availability of water is limited, and prioritised for drinking and washing needs.*
- **Limited water availability** *can hinder the growth of plants, thus restricting the potential for sequestration through photosynthesis.*
- *Fast-growing trees and deep-rooted perennial grasses tend to be better at this task — but on the flip side, these types of plants may not be well-suited to arid environments.*
- *Further, the adoption of carbon farming practices may require* **financial assistance** *for farmers to overcome the costs of implementing them.*
- *In the context of developing countries like India, small-scale farmers may* **lack the resources to invest in sustainable land management practices and environmental services.**
- *In sum, while carbon farming holds promise as a mitigation strategy, addressing these challenges is essential to realise its full potential in combating climate change.*

What are some carbon farming schemes worldwide?

- *In recent years, the practice of carbon trading in the agriculture sector has become important around the world, but especially in the U.S., Australia, New Zealand, and Canada, where voluntary carbon markets have emerged. Initiatives like* **the Chicago Climate Exchange and the Carbon Farming Initiative** *in Australia demonstrate efforts to incentivise carbon mitigation activities in agriculture.*
- *The processes range from* **no-till farming** *(growing crops without disturbing the soil) to reforestation and pollution reduction.*

- *Initiatives like* **Kenya's Agricultural Carbon Project**, *which has the World Bank's support, also highlight the potential for carbon farming to address climate mitigation and adaptation and food security challenges in economically developing countries.*
- *The launch of the* **'4 per 1000' initiative** *during the COP21 climate talks in 2015 in Paris highlights the particular role of sinks in mitigating greenhouse-gas emissions.*
- *As the oceans and the atmosphere are filled with carbon, and they approach their saturation points, we must manage the remaining carbon budget of 390 billion tonnes or so wisely.*

What are the opportunities in India?

- **Grassroots initiatives and pioneering agrarian research** *in India are demonstrating the viability of organic farming to sequester carbon.*
- *Regions with extensive agricultural land, such as the Indo-Gangetic plains and the Deccan Plateau, are well suited to adopt carbon farming whereas the mountainous terrain of the Himalayan region is less so.*
- *Coastal areas are prone to salinisation and have limited access to resources, thus limited the adoption of traditional farming practices.*
- *Further,* **carbon credit systems can incentivise farmers** *by providing additional income through environmental services. Studies have shown agricultural soils can absorb 3-8 billion tonnes of CO2-equivalent every year over 20-30 years.*
- *This capacity can bridge the gap between feasible emissions reductions and the indispensable stabilisation of the climate.*
- *So carbon farming could also be a sustainable strategy to mitigate climate change and enhance food security in India.*
- *But scaling it up requires concerted efforts to address several challenges, including limited awareness, inadequate policy support, technological barriers, and an enabling adoption environment.*
- *Yet promoting carbon farming is in India's interests — to mitigate climate change while improving soil health, enhancing biodiversity, and creating economic opportunities for its adopters.*