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**1. India Protests Chinese Moves in Ladakh**

**Formation of New Counties in Ladakh**

India has officially protested China's creation of two new counties—He'an County and Hekang County—in the Hotan prefecture, which includes parts of Aksai Chin, a territory claimed by India but occupied by China.



### India's Stand:

- India does not recognize China's "illegal occupation" of Indian territory.
- The formation of new counties does not affect India's sovereignty claims over the area.
- A "solemn protest" was lodged through diplomatic channels.

### China's Announcement:

- The creation of the counties was reported by Chinese news agency Xinhua on December 27, 2024.

Relevance: GS Prelims; International Relations

Source: The Hindu

## 2. Rising Nitrate Levels in India's Groundwater: A Growing Concern

### • Worrisome Trends in Nitrate Contamination:



- Districts with excessive nitrate in groundwater rose from 359 in 2017 to 440 in 2023.
- Over half of India's 779 districts now have nitrate levels exceeding the safe limit of 45 mg/L.
- Approximately 19.8% of groundwater samples analyzed by the Central Ground Water Board (CGWB) in 2023 showed excessive nitrate levels.

### • Health and Environmental Impact:

- Health: High nitrate levels can cause methemoglobinemia (reduced oxygen-carrying capacity of blood), leading to 'Blue Baby Syndrome' in infants.
- Environment: Nitrates in surface water cause algal blooms, damaging aquatic ecosystems.

### Regional Analysis

- States with Highest Nitrate Contamination:
  - Rajasthan (49%), Karnataka (48%), Tamil Nadu (37%).
- Consistent Nitrate Issues: Rajasthan, Madhya Pradesh, Gujarat (due to geological factors).
- Rising Nitrate Levels: Central and southern regions of India.

### Groundwater Contaminants Beyond Nitrate

- Fluoride: High concentrations reported in Rajasthan, Haryana, Karnataka, Andhra Pradesh, and Telangana.
- Uranium: Also a concern in certain regions.

### Link to Agriculture and Over-Exploitation

- Intensive agriculture correlates with elevated nitrate levels. States with over-exploited groundwater blocks (where extraction exceeds replenishment) are more likely to have chemical contamination.

### Current Status of Groundwater Health

- Replenishment:
  - 73% of analyzed groundwater blocks are in the 'safe' zone, with adequate replenishment.
  - Groundwater extraction levels have remained stable since 2009.

### Need for Action

- Positive Development: India has a robust system to monitor groundwater health annually.

### • Challenges:

- Lack of strong implementation and follow-up by states.
- Insufficient awareness programs to address the crisis.

### • Recommendations:

- High-level leadership to drive awareness and action.
- Sustainable agricultural practices and better water management to reduce contamination.

Relevance: GS Prelims & Mains Paper III; Environment

Source: The Hindu

## 3. Why is rupee weakening against dollar?

### Introduction



In the last week of December, 2024, the rupee breached the 85 mark against the U.S. dollar, touching an all-time low of 85.81. The currency depreciated about 3% in 2024, continuing its long-term trend of gradually but consistently losing value against the dollar.

### What causes a currency to depreciate?

The price of any currency in the foreign exchange market is determined by the demand for the currency vis-a-vis its

supply. This is similar to how the price of any other product is determined in the marketplace. When the demand for a product rises while its supply remains constant, this causes the price of the product to rise in order to ration the available supply. On the other hand, when the demand for a product drops while its supply remains constant, this causes sellers to drop the price of the product in order to attract sufficient buyers.

The only difference between the goods market and the forex market is that currencies are exchanged for other currencies rather than for goods in the foreign exchange market.

A currency depreciates against a foreign currency when the demand for it (in terms of the foreign currency) drops compared to its available supply in the market. When the currency's value depreciates, the value of the foreign currency automatically appreciates on the other



side. This is similar to how the purchasing power of your money depreciates or appreciates when the price of goods in the marketplace rise or fall, respectively.

There are various factors that determine the demand for and the supply of any currency in the foreign exchange market.

One of the most important determinants of the supply of a currency in the market is the monetary policy of a country's central bank. A central bank adopting looser monetary policy compared with other central banks will cause the supply of its currency in the market (for both goods trade and investment purposes) to rise relative to other currencies, causing the currency's value to drop. Central banks adopting relatively tighter monetary policy, on the other hand, are likely to see their currencies appreciate in value.

A crucial factor that determines the demand for any currency, on the other hand, is the demand among foreigners for the goods and assets of the country. Since foreigners will first have to purchase the local currency before they can purchase a country's goods and assets, high demand for a country's goods and assets translates to high demand for its currency and which in turn leads to a rise in the value of the currency. A fall in demand for a country's goods or assets, on the other hand, will cause the value of its currency to fall.

### **What is behind the rupee's fall?**

The current bout of rupee depreciation is seen as driven primarily by the exit of foreign investors from India, which has put pressure on the rupee.

Global investors have been shuffling their investments across countries as central banks recalibrate their monetary policies to varying degrees. High inflation in the aftermath of the coronavirus pandemic led to monetary tightening by central banks which is now being reversed as inflation comes more under control. This has pushed investors to withdraw money from markets like India and invest in more advanced markets.

Meanwhile, the longer term trend of the rupee's depreciation against the dollar is attributed to higher inflation in India than in the U.S. due to the Reserve Bank of India's looser monetary policy compared to the U.S. Federal Reserve. India's traditional demand for high-value imports such as crude oil and gold (which boosts demand for the dollar and weakens the rupee) to keep its economy going and its inability to boost exports (which can help boost demand for the rupee) have also contributed to the lackluster performance of the rupee. The RBI has been using its dollar reserves to prop up the value of the rupee by artificially increasing the supply of dollars in the foreign exchange market, and thus the dollar demand for rupees.

As a result, the value of India's foreign exchange reserves dropped to an eight-month low of \$640 billion as of the last week of December from over \$700 billion in September.

Analysts believe the rupee's depreciation would have been far worse if not for the RBI's intervention to support the rupee against the dollar.

The RBI's traditional stance has been to manage the rupee's exchange value in such a way as to allow for a gradual depreciation in its value without too much volatility that could disrupt the economy.

Relevance: GS Prelims & Mains Paper III; Economics

Source: Indian Express

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