



DAILY CURRENT AFFAIRS 29-03-2024

GS-1

1. Afanasy Nikitin Seamount

GS-2

2. Sri Lanka-China relations

GS-3

3. State of Employment in India
4. Lung cancer
5. H5N1 Bird Flu

Afanasy Nikitin Seamount

Syllabus: GS-1: Geography – Oceanography.

Context:

- India applied to the **International Seabed Authority (ISBA)** in Jamaica for rights to explore two vast tracts in the Indian Ocean seabed.
- One of the regions, known as the **Afanasy Nikitin Seamount (AN Seamount)**, is rich in cobalt and claimed by Sri Lanka under different laws.



- India's application is partly motivated by **reports of Chinese vessels conducting reconnaissance in the same area.**
- The AN Seamount is a **structural feature in the Central Indian Basin**, about 3,000 km from India's coast, with rich deposits of cobalt, nickel, manganese, and copper.

Exclusive rights

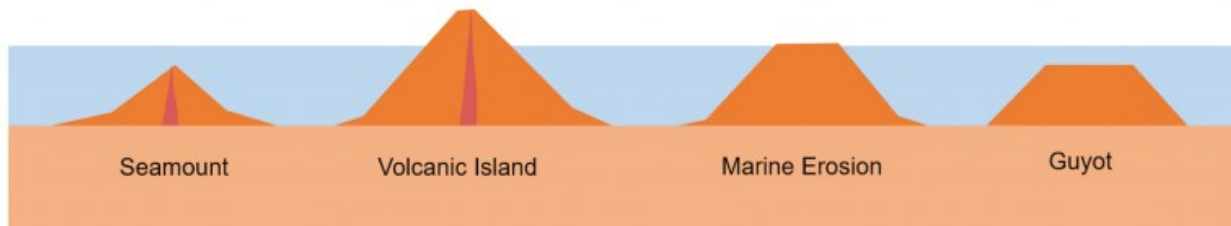
- Countries have **exclusive rights up to 200 nautical miles**, including the underlying sea-bed from their borders.
- Regions not part of a country's continental shelf are considered **'high sea' and open for exploration with ISA permission.**
- The ISA is reviewing India's application for cobalt-rich ferromanganese crust, **seeking clarification due to overlap with Sri Lanka's claim.**
- India presented scientific evidence in Jamaica to support its exploration claims, with a decision expected later this year.
- India also applied for permission to **explore the Carlsberg Ridge** for polymetallic sulphides, rich in copper, zinc, gold, and silver.



- India has **staked a claim for its continental shelf up to 350 nautical miles** but awaits approval, having previously secured exploration rights in the Central Indian Ocean.

What is seamount?

- It is a mountain with pointed summits, rising from the seafloor that does not reach the surface of the ocean. Seamounts are volcanic in origin. These can be 3,000-4,500 m tall.
- The Emperor seamount, an extension of the Hawaiian Islands in the Pacific Ocean, is a good example.



Guyots

- It is a **flat topped seamount**. They show evidences of gradual subsidence through stages to become flat topped submerged mountains.
- It is estimated that more than 10,000 seamounts and guyots exist in the Pacific Ocean alone.

Mid-Oceanic Ridges

- A mid-oceanic ridge is composed of **two chains of mountains** separated by a large depression.
- The mountain ranges can have **peaks as high as 2,500 m** and some even reach above the ocean's surface.

About ISA

- *The International Seabed Authority (ISA) is an autonomous international organization established in 1994.*
- *It **regulates mining and related activities** in the international seabed beyond national jurisdiction, covering most of the world's oceans.*
- *The ISA was established upon the entry into force of the **1982 United Nations Convention on the Law of the Sea (UNCLOS)**.*
- *UNCLOS sets out **international law regarding territorial waters, sea lanes, and ocean resources**.*
- *The ISA is **responsible for organizing and controlling** all mineral-resources-related activities in the Area, defined as the seabed and ocean floor beyond national jurisdiction.*
- *Its mission is to manage these activities **for the benefit of humankind as a whole**.*
- *The ISA also has the mandate to ensure the **effective protection of the marine environment** from harmful effects that may arise from deep-seabed-related activities.*
- *The headquarters of the ISA is **located in Kingston, Jamaica**.*
- *As of May 2023, the ISA has 169 Members, including 168 Member States and the European Union.*

Functions:

- **Granting licenses:** *The ISA is responsible for issuing licenses for exploration and exploitation of mineral resources in the international seabed.*
- **Regulation:** *It regulates activities related to the exploration and exploitation of mineral resources, ensuring compliance with international standards and guidelines.*
- **Environmental protection:** *The ISA ensures that these activities are conducted in a manner that safeguards the marine environment from harmful effects.*
- **Promotion of equitable and efficient resource utilization:** *It aims to promote fair and efficient utilization of mineral resources, ensuring benefits for all stakeholders involved.*

Sri Lanka-China relations

Syllabus: GS-2: International relations.

Context:

- *Xi Jinping: People of China and Sri Lanka have a natural sense of closeness.*

Sri Lanka – China Relations:

- **China is the Largest Creditor to Sri Lanka:** *China stands as the foremost bilateral creditor to Sri Lanka.*
 - *Its loans to the Sri Lankan public sector constitute a significant 15% of the central government's external debt.*
 - **Sri Lanka heavily relies on Chinese credit** *to manage its foreign debt burden effectively.*
- **Chinese Investments in Infrastructure Projects:** *Over the period of 2006-2019, China has injected approximately USD 12 billion into Sri Lanka's infrastructure initiatives.*
- **Tilt towards China:** *Sri Lanka's ongoing economic crisis may propel it further towards aligning its policies with China's strategic interests.*
- **China's Ambitions in the Indian Ocean:** *China's influence in South Asia and the Indian Ocean region remains notably stronger compared to its engagements in Southeast Asia and the Pacific.*
 - *China encounters challenges such as opposition from Taiwan, territorial disputes in the South China Sea and East Asia, and various tensions with the US and Australia.*

India's Concerns:

- **Obstacle to SAGAR Initiative:** *India's proposed Indian Ocean island countries forum appears to pose a challenge to Prime Minister Narendra Modi's SAGAR (Security and Growth for All in the Region) initiative, which serves as India's strategic blueprint for the Indian Ocean Region (IOR).*
- **Issues Emanating from Two Engines of Growth:** *China has secured formal control over Sri Lanka's Hambantota port through a 99-year lease agreement.*
 - *Additionally, Sri Lanka's decision to establish a **Special Economic Zone** around the Colombo port city, along with a new economic commission funded by China, has raised concerns.*

- *The Colombo port, crucial for **India's maritime trade**, handles a significant 60% of the country's trans-shipment cargo.*
 - *The **leasing of Hambantota** and the **development of the Colombo Port City** project suggest a **potential permanent presence of the Chinese navy** in the Indian Ocean, heightening worries for India's national security.*
 - *This Chinese strategic move, often termed the "**Strings of Pearls Strategy**," is perceived as an attempt to encircle India.*
- **Influencing India's Neighbours:** *Other South Asian nations like Bangladesh, Nepal, and the Maldives have increasingly turned to China for financing large-scale infrastructure projects, further shaping regional dynamics.*

State of Employment in India

Syllabus: GS-3: Indian Economy – Employment.

Context:

- *Labor market indicators in India have shown "paradoxical improvements" in recent years.*
- *These indicators include the labor force participation rate, workforce participation rate, and unemployment rate.*
- *From 2000 to 2019, there was a long-term deterioration in these indicators.*

Major findings of The India Employment Report 2024:

- *The India Employment Report 2024, released by the Institute for Human Development and the International Labour Organization, highlights these findings.*
- *The improvements in labor market indicators have occurred despite periods of economic distress.*
- *These improvements have been observed both before and during the Covid-19 pandemic.*

The big picture:

- *The report raises **concerns regarding poor employment** conditions in India.*
- *It notes a **slow transition to non-farm employment**, which has reversed.*

- **Women are largely contributing** to the increase in self-employment and unpaid family work.
- Youth employment **quality is lower** compared to adults.
- Wages and earnings are either **stagnant or declining**.
- An '**employment condition index**' has shown improvement from 2004-05 to 2021-22.
- However, certain **states like Bihar, Odisha, Jharkhand, and UP** have consistently remained at the bottom in terms of employment conditions.
- Conversely, states like **Delhi, Himachal Pradesh, Telangana, Uttarakhand, and Gujarat** have consistently performed better.

Employment quality:

- **Informal employment has seen a rise**, with approximately half of the jobs in the formal sector being informal.
- **Self-employment and unpaid family work** have increased, particularly among women.
- **About 82% of the workforce** is engaged in the informal sector, with nearly 90% informally employed.
- Self-employment remains the primary source of employment, **accounting for 55.8% in 2022**.
- **Casual and regular employment** represent 22.7% and 21.5% respectively.
- Between 2000 and 2019, the **share of self-employment remained stable** at around 52%, while regular employment increased by almost 10 percentage points to 23.8%.
- However, by 2022, there was a reversal, with self-employment increasing to 55.8%, and the share of regular employment declining to 21.5%.
- **Casual employment consistently declined**, reaching 22.7% in 2022 from 33.3% in 2000.
- Regular employment is **generally considered to provide better-quality jobs** due to the regularity of employment and associated social security benefits.
- Casual work, on the other hand, is **associated with relatively poor-quality jobs** due to its irregular nature and lower daily earnings.

Participation of women:

- India has one of the **world's lowest female labor force participation rates (LFPR)**.
- Between 2000 and 2019, the **female LFPR declined by 14.4 percentage points**, compared to 8.1 percentage points for males.
- However, the trend reversed afterward, **with female LFPR increasing by 8.3 percentage points** between 2019 and 2022, compared to 1.7 percentage points for males.

- *Despite the increase, **there is still a significant gender gap**, with women's LFPR in 2022 being 2.3 times lower than men's LFPR.*
- *In 2022, **women's LFPR stood at 32.8%**, while men's LFPR was 77.2%.*
- *India's low LFPR is primarily due to the low female LFPR, which was much lower than the world average of 47.3% in 2022 but higher than the South Asian average of 24.8%, according to ILO data.*

Structural transformation

- *A slow transition away **from agriculture towards non-farm employment** reversed after 2018-19.*
- *The share of agriculture in total employment **decreased from 60% in 2000 to around 42% in 2019.***
- *This shift was **mainly absorbed by the construction and services sectors**, whose share in total employment increased from 23% in 2000 to 32% in 2019.*
- *The share of manufacturing in employment **remained relatively stagnant**, ranging between 12% and 14%.*
- *However, since 2018-19, this slow transition has either stagnated or reversed, with the share of agricultural employment rising again.*

Youth employment:

- ***Youth employment has increased**, but concerns persist regarding the quality of work, particularly for qualified young workers.*
- *Between 2000 and 2019, **both youth employment and underemployment rose**, but they declined during the pandemic.*
- *Unemployment among youths, particularly those with secondary-level or higher education, **has intensified over time.***
- *In 2022, **unemployed youths accounted for 82.9%** of the total unemployed population.*
- *The proportion of educated youths among all unemployed individuals **increased from 54.2% in 2000 to 65.7% in 2022.***
- *The unemployment rate among youths who completed secondary education or higher was 18.4% in 2022, and for graduates, it was **29.1%**, significantly higher than the rate for those who couldn't read or write (3.4%).*
- ***Unemployment rates were higher among educated young women (21.4%)** than men (17.5%), especially among female graduates (34.5%) compared to male graduates (26.4%).*
- *The **unemployment rate among educated youths increased** from 23.9% in 2000 to 30.8% in 2019 but decreased to 18.4% in 2022.*

Way forward:

- **Promoting Job Creation:** Policies should focus on creating more employment opportunities.
- **Improving Employment Quality:** Efforts are needed to enhance the quality of jobs available, ensuring they offer security, decent wages, and benefits.
- **Addressing Labour Market Inequalities:** Measures should be taken to reduce disparities and ensure fair opportunities for all segments of society in the labor market.
- **Strengthening Skills and Active Labour Market Policies:** Investments are required in education and training programs to equip the workforce with the skills needed for current and future job demands.
- Active labor market policies should also be implemented to facilitate job matching and retraining.
- **Bridging Knowledge Deficits on Labour Market Patterns and Youth Employment:** There's a need for better understanding and data collection on labor market dynamics, especially concerning youth employment.
- **Adapting to the Impact of AI:** Policies must consider the potential impact of artificial intelligence on employment, particularly in sectors like outsourcing. Investment in emerging sectors such as care and digital economies could provide productive employment opportunities.
- **Boosting Productive Non-Farm Employment:** Economic policies should focus on stimulating growth in non-farm sectors, particularly manufacturing, to absorb the increasing number of youths entering the labor force.
- **Supporting Micro, Small, and Medium-sized Enterprises (MSMEs):** MSMEs should be supported through initiatives such as digitalization, AI adoption, and a cluster-based approach to manufacturing to enhance their productivity and competitiveness.

Practice Question

Q. Analyze India's labour market dynamics, addressing issues like employment quality, gender disparities, youth unemployment, AI impact, and policy recommendations for job creation and skill development. (15 marks, 250 words)

Lung cancer

Syllabus: GS-3: General Science – diseases.

Context:

- *ICMR set to bring in evidence-based norms for prevention, screening, diagnosis, and management of lung cancer.*

Background:

- *Lung cancer is a significant health issue in India, responsible for 10% of total cancer deaths in the country.*
- *Despite its prevalence, there are currently no evidence-based guidelines for prevention, screening, diagnosis, management, and palliation of lung cancer in India.*
- *The Indian Council of Medical Research (ICMR) has recognized this gap and is preparing to address it.*

Grading Methodology:

- *The ICMR will assess the strength of evidence derived from systematic reviews and meta-analyses **using the GRADE methodology.***
- *GRADE evaluates the quality of evidence and informs the formulation of recommendations through the **Evidence to Decision (EtD) framework.***
- *Depending on the review scope, teams may handle multiple review questions, including prevention, screening, and diagnosis.*

About Lung Cancer:

- **Lung cancer is a significant global public health concern, leading to a substantial number of deaths.**
- **Primary risk factor:** *Smoking tobacco (cigarettes, cigars, pipes), but non-smokers can also be affected.*
- **Other risk factors:** *Exposure to second-hand smoke, occupational hazards (asbestos, radon, certain chemicals), air pollution, hereditary cancer syndromes, and previous chronic lung diseases.*

H5N1 Bird Flu

Syllabus: GS-3: General Science – Diseases.

Context:

- *How the H5N1 bird flu threatens the very existence of birds and mammals.*

Background:

- *Since 2020, a dangerous bird flu strain called H5N1 has been spreading worldwide, threatening birds and wildlife.*
- *It has infected birds in over 80 countries as of December 2023, leading to the culling of millions of chickens and turkeys.*
- *Wild bird species like gulls and terns have also been affected, with thousands dying.*
- *Concerningly, the virus is now spreading rapidly among mammals, with tens of thousands of seals and sea lions dying from the disease.*
- *It has even reached mainland Antarctica for the first time.*
- *Dr. Chris Walzer, from the Wildlife Conservation Society, highlighted that H5N1 has infected over 150 avian species and dozens of mammalian species globally.*
- *The bird flu outbreak is the worst in history, with hundreds of millions of birds dead since its emergence in domestic waterfowl in China in 1996.*

What is Bird Flu

- *Bird flu, or avian flu, is a contagious viral disease primarily affecting poultry and certain wild birds.*
- **The H5N1 strain, currently prevalent,** *originated from an outbreak on a goose farm in Guangdong, China, in 1996.*
- *Initially highly pathogenic, it caused significant mortality among infected birds.*
- **In cramped conditions of poultry farms,** *the virus can quickly mutate into more dangerous forms, leading to larger outbreaks.*
- *Highly pathogenic strains like H5N1 pose significant threats to poultry industries, wildlife populations, and **potentially to human health through zoonotic transmission.***
- **Severity:** *H5N1, for example, has caused severe illness and high mortality rates among infected birds, leading to concerns about its potential for wider spread and impact.*
- **Emergence:** *The new version of H5N1 first appeared in Europe in 2020.*
- **Spread:** *It rapidly spread across Europe, Africa, and Asia.*
- **Expansion to North America:** *By late 2021, the virus had reached North America.*
- **Appearance in South America:** *In the fall of 2022, H5N1 emerged in South America.*

- **Antarctic Outbreak:** *In February 2024, the virus made its way to mainland Antarctica, marking a significant spread to a previously untouched region.*

Impact on other animals:

- *Great Skuas died across islands in Scotland in summer 2021.*
- *In winter 2021/22, bird flu killed a third of the Svalbard breeding population of Barnacle Geese, totaling at least 13,200 birds.*
- *In winter 2022/23, up to 5,000 Greenland Barnacle Geese died on Islay, along with hundreds of other bird species like ducks, swans, gulls, and other geese species.*
- *Birds of prey such as Peregrine Falcon, Hen Harrier, Buzzard, White-tailed Eagle, and Golden Eagle have also tested positive for the virus.*

Impact on Endangered Species:

- *At least 21 endangered California condors died from the virus in 2023 alone, representing nearly 6% of the total population.*

Impact on Mammals:

- *Outbreaks among foxes, pumas, skunks, black bears, and brown bears have been reported in North America.*
- *Farmed minks in Spain and Finland have been infected.*
- *Small mammals, like minks, pose a significant concern for viral reassortment and increased virulence due to their overcrowded and unsanitary conditions.*
- *Marine mammals are severely affected, with over 20,000 sea lions and some dolphins dying in Chile and Peru.*
- *Deaths of seals have been reported on the east and west coasts of the US, with thousands of elephant seals killed in Argentina.*
- *Southern elephant seal pups along 300 km of the Patagonia coastline have suffered massive mortality, with over 95% dying at the end of 2023, a phenomenon not seen in the area for the last half-century.*

Risk to Humans:

- *Humans rarely contract bird flu but are at risk, especially when in contact with a large number of sick birds at poultry farms, where there is a high viral load.*

Reason behind large scale spread:

Climate Change Impact:

- *Rising global temperatures are believed to affect bird behavior, leading them to migrate into new territories and interact with species they typically don't.*

- *This increased interaction potentially facilitates the spread of the virus among bird populations.*
- *Higher sea surface temperatures may also contribute to the spread, as seen near northern Chile, where weakened sea lions are more susceptible to disease due to a decline in forage fish population.*

Behavioral Changes in Birds:

- *Changes in bird behavior due to climate change could exacerbate the spread of the virus, as altered migration patterns and interactions with different bird species increase the likelihood of transmission.*

Weakening of Marine Animals:

- *Warmer sea temperatures have led to a decline in forage fish populations, making marine animals like sea lions weaker and more vulnerable to diseases.*