



TATHASTU ICS

DAILY CURRENT AFFAIRS



27 SEPTEMBER, 2023

S.NO.	TOPIC
1.	CLIMATE CHANGE AND ONE HEALTH APPROACH
2.	INDO-PACIFIC REGION A WEB OF INTERDEPENDENCIES

CLIMATE CHANGE AND ONE HEALTH APPROACH

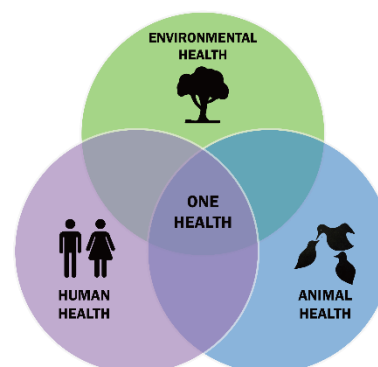
SOURCE: [TH](#)

WHY IN NEWZ?

The Intergovernmental Panel on Climate Change (IPCC) has warned that climate change is heightening the global risk of infectious diseases, and this is already being seen in the form of more frequent and severe outbreaks of diseases such as dengue, malaria, and chikungunya. Embracing the One Health paradigm and safeguarding ecosystems are key defences against climate-induced disease scenarios.

ABOUT ONE HEALTH APPROACH:

According to WHO, One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.



HOW CLIMATE CHANGE IS CONTRIBUTING IN INCREASING ZOOBOTIC DISEASES:

1. **Altered Habitats:** Climate change disrupts ecosystems, pushing disease-carrying animals into new areas where they interact with humans.
2. **Vector Proliferation:** Warmer temperatures and altered rainfall patterns can expand the range of disease vectors like mosquitoes, increasing transmission opportunities.
3. **Animal Stress:** Climate-related stress on wildlife weakens their immune systems, making them more susceptible to pathogens that can jump to humans.
4. **Human Migration:** Climate-induced displacement can lead to overcrowding in refugee camps, facilitating disease spread.
5. **Changing Pathogen Dynamics:** Climate affects the survival, replication, and distribution of pathogens, potentially making them more infectious.
6. **Food and Water Contamination:** Climate-related extreme events can contaminate food and water sources, leading to the transmission of zoonotic diseases.

NEED FOR ONE HEALTH:

- ❖ **Complexity of Zoonotic Diseases:** Zoonotic infections, which originate in animals and transmit to humans, are complex and require a multidisciplinary approach.
- ❖ **Interconnected Ecosystems:** Human health, animal health, and the environment are interconnected, and disruptions in one can affect the others.

SIGNIFICANCE OF ONE HEALTH:

- ❖ **Early Detection and Prevention:** One Health enables early detection of zoonotic threats and the implementation of preventive measures. For example, monitoring and controlling avian influenza in poultry can prevent human outbreaks.
- ❖ **Disease Control:** Collaboration between human and veterinary health sectors is crucial for effective disease control. For instance, the control of rabies in humans is dependent on vaccinating and managing animal reservoirs like dogs.
- ❖ **Emerging Diseases:** One Health is vital for addressing emerging diseases like COVID-19, where the origin is linked to wildlife and the environment.
- ❖ **Antibiotic Resistance:** It helps combat antibiotic resistance by promoting responsible use in both human medicine and animal agriculture.
- ❖ **Environmental Protection:** One Health approaches protect ecosystems, preventing diseases like Lyme disease by managing animal populations that host disease vectors like ticks.
- ❖ **Global Health Security:** It enhances global health security by monitoring and controlling diseases at their source, preventing pandemics.

GOVERNMENT INITIATIVES TOWARDS THE ONE HEALTH APPROACH:

Initiative	Description
Integrated Disease Surveillance Programme (IDSP)	<ul style="list-style-type: none"> ▪ This program, initiated by the Ministry of Health and Family Welfare, monitors and responds to disease outbreaks and includes zoonotic diseases in its surveillance activities. ▪ It helps in early detection and containment of diseases that can spread between humans and animals.
National Action Plan on Antimicrobial Resistance (NAP-AMR)	<ul style="list-style-type: none"> ▪ Led by the Ministry of Health and Family Welfare, this plan addresses antimicrobial resistance (AMR) in both human healthcare and animal husbandry. ▪ It promotes the responsible use of antibiotics and surveillance of AMR in zoonotic pathogens.
National Institute of One Health (NIOH)	<ul style="list-style-type: none"> ▪ Proposed by the Indian Council of Medical Research (ICMR), this institute aims to promote research, capacity building, and collaboration among multiple sectors, including human and animal health, wildlife, and environment, to address zoonotic diseases.
Collaboration with International Organizations	India collaborates with international organizations such as the World Health Organization (WHO), Food and Agriculture Organization (FAO), and World Organisation for Animal Health (OIE) to strengthen One Health initiatives and global health security.
Wildlife Conservation Efforts	conservation projects to protect wildlife and their habitats, reducing the risk of zoonotic spill over.

WAY FORWARD:

- **One Health Approach:** Implement a One Health approach involving collaboration among human health, animal health, and environmental sectors.
- **Early Detection:** Strengthen surveillance systems to detect zoonotic disease outbreaks promptly.
- **Ecosystem Protection:** Preserve and restore ecosystems to reduce disease spillover from wildlife.
- **Resilient Agriculture:** Promote climate-resilient and sustainable agriculture to minimize disease risks in livestock.

- **Antimicrobial Stewardship:** Encourage responsible antibiotic use to combat antimicrobial resistance.
- **International Collaboration:** Foster global cooperation to address cross-border disease threats.

PRELIMS SPECIFIC:

ANTI-MICROBIAL RESISTANCE: Antimicrobial resistance is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.

Q. Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India? (2019)

- (1). Genetic predisposition of some people
- (2). Taking incorrect doses of antibiotics to cure diseases
- (3). Using antibiotics in livestock farming
- (4). Multiple chronic diseases in some people

Select the correct answer using the code given below.

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

Ans: (b)

INDO-PACIFIC REGION A WEB OF INTERDEPENDENCIES

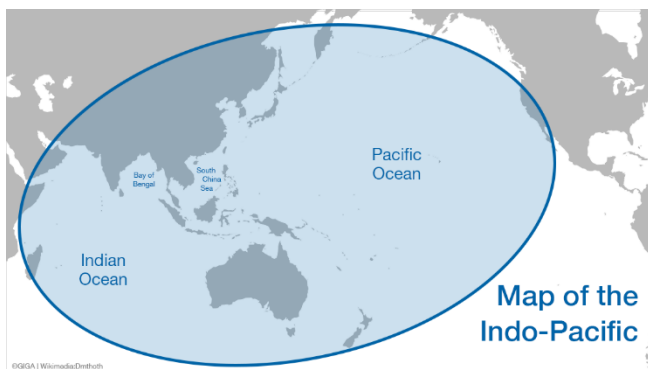
SOURCE: [TH](#), [THE ECONOMIC TIMES](#)

WHY IN NEWZ?

The Indo-Pacific region is characterized by its intricate interdependencies among nations, according to India's Army Chief, General Manoj Pande

ABOUT INDO-PACIFIC REGION:

The Indo-Pacific region is a term used to refer to the vast geographic area that encompasses the Indian Ocean and the western and central Pacific Ocean, including the seas and straits that connect them.



SIGNIFICANCE OF INDO-PACIFIC REGION:

- Geopolitical Significance:** The Indo-Pacific region holds strategic importance as it includes **some of the world's most populous and influential nations, including China, India, Japan, and the United States.**
- Economic Significance:** This area is home to **65% of the global population** and **contributes to approximately 63% of the world's GDP**, underlining its economic importance.
- Security Complexities:** The region faces various security challenges such as territorial disputes, piracy, terrorism, and concerns regarding nuclear proliferation.
- Environmental Issues:** Environmental concerns in the Indo-Pacific encompass **coral reefs, rainforests, and areas of high biodiversity.**
- China's Ascendancy:** China's rapid economic and military growth has played a pivotal role in shifting global attention towards the Indo-Pacific region.

INDIAN INITIATIVES TAKEN IN INDO-PACIFIC:

Initiative	Description
Hosting HACGAM	India advocates open and rule-based maritime borders in the Indo-Pacific at the 18th Heads of Asian Coast Guard Agencies Meeting (HACGAM) in New Delhi on October 15, 2022.
SAGAR Initiative	SAGAR serves as a mechanism for India to enhance strategic partnerships with littoral nations in Asia and Africa within the Indian Ocean region.
Indo-Pacific Regional Dialogue (IPRD)	IPRD, a Track 1.5 event, promotes public policy discussions with balanced representation from government and non-government entities.
Indo-Pacific Oceans Initiative (IPOI)	India's pillars of cooperation with other countries encompass Maritime Security, Ecology, Resources, Capacity Building, Disaster Risk Reduction, Science & Technology, Trade, Connectivity, and Maritime Transport.
QUAD	India is a member of the Quadrilateral security dialogue, which aims to enhance regional security and economic cooperation in the Indo-Pacific.
Indo-Pacific Division in MEA	India has established an Indo-Pacific division within the Ministry of External Affairs to manage matters related to the Indo-Pacific region.

INTERNATIONAL STRATEGIES AND DEVELOPMENTS RELATED TO INDO-PACIFIC:

1. **USA's Indo-Pacific Strategy:** In February 2022, the United States unveiled its Indo-Pacific Strategy, crafted alongside allies and partners, with the **goal of promoting a free, open, connected, prosperous, secure, and resilient Indo-Pacific region.**
2. **Canada's Indo-Pacific Strategy:** Canada's Indo-Pacific Strategy seeks to protect and further its interests by fostering a secure, prosperous, inclusive, and sustainable region. It concentrates on **four key areas: China, India, the North Pacific (Japan and Korea), and ASEAN.**
3. **Japan's "Free and Open Indo-Pacific" Vision:** Japan envisions a "Free and Open Indo-Pacific" to enhance regional stability and prosperity through improved connectivity between Asia and Africa, promoting a free and open Indo-Pacific region.
4. **Indian Vision of Indo-Pacific:** India advocates for a **"free, open, and inclusive Indo-Pacific"** and emphasizes peaceful dispute resolution while respecting the sovereignty and territorial integrity of all nations.
5. **ASEAN's Outlook on the Indo-Pacific:** ASEAN perceives the Indo-Pacific region as a space for dialogue and cooperation rather than rivalry, aiming for development and prosperity for all in the Indo-Pacific.
6. **AUKUS Security Partnership:** The AUKUS partnership, announced by the **United States, the United Kingdom, and Australia,** focuses on bolstering **collaboration in security and defence matters, particularly in the Indo-Pacific region.**

ISSUES AND CHALLENGES IN THE INDO-PACIFIC:

1. **Territorial Disputes:** The Indo-Pacific hosts several territorial conflicts, **including ongoing disputes in the South China Sea and East China Sea.**
2. **Power Competition:** There's a power shift in the region, with **China's assertiveness challenging the traditional dominance of the United States and its allies.**
3. **Economic Issues:** The region grapples with economic disparities, trade imbalances, and rising debt levels.
4. **Environmental Concerns:** The Indo-Pacific boasts diverse but vulnerable ecosystems like coral reefs and mangroves, threatened by climate change, pollution, and overfishing.
5. **Non-traditional Security Threats:** Non-traditional threats such as **transnational crime, terrorism, and cyberattacks require coordinated regional responses involving governments, security forces, and civil society.**

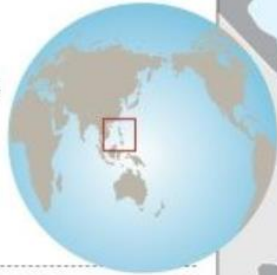
WAY FORWARD:

- **Bilateral Collaboration:** Many challenges in the Indo-Pacific can be tackled through bilateral collaboration between countries. For instance, countries can cooperate on matters like maritime security and countering piracy.
- **Multilateral Engagement:** Multilateral institutions such as **ASEAN, APEC, and the Indian Ocean Rim Association** have a significant role in fostering cooperation within the Indo-Pacific.
- **Regional Initiatives:** Regional endeavours like the **Quad, comprising the United States, Japan, India, and Australia,** can collaborate to enhance regional security, promote economic integration, and address common issues like climate change and cybersecurity.
- **Global Involvement:** International bodies like the United Nations can support endeavours aimed at promoting peace, security, humanitarian aid, and sustainable development in the Indo-Pacific.

Disputed claims in the South China Sea

Claims

- China
- Philippines
- Malaysia
- Brunei
- Vietnam



Area:

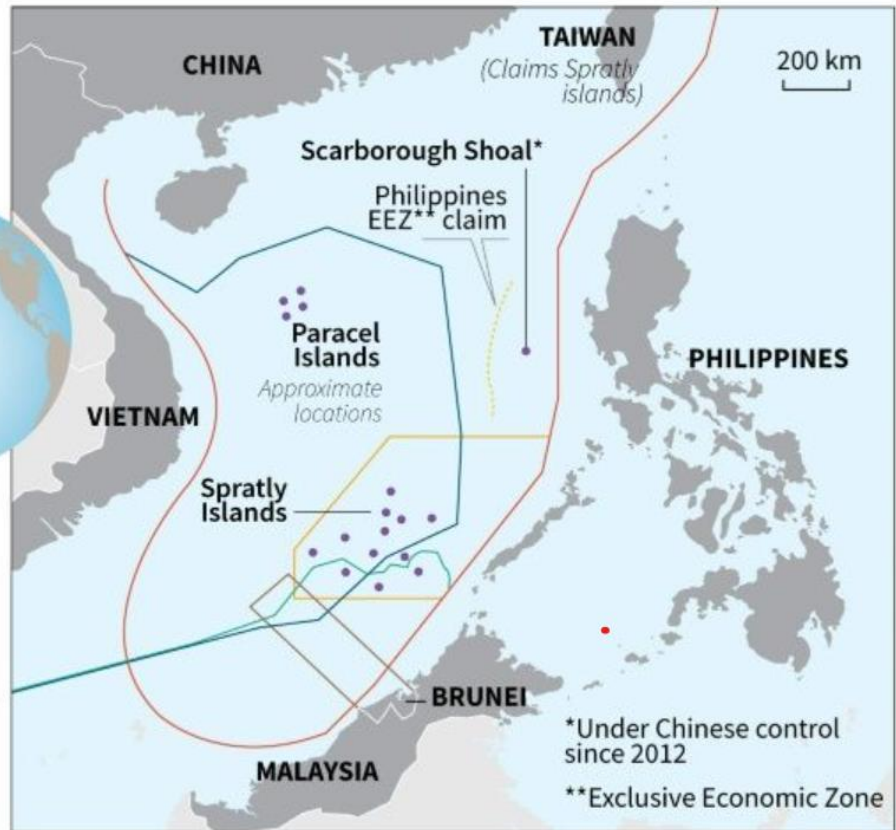
South China Sea covers more than 3 million sq km

Trade:

Over \$5 trillion in ship-borne trade passes through the sea annually

Oil and gas:

Major unexploited oil and gas deposits are believed to lie under the seabed



Sources: CSIS/AMTI/D.Rosenberg/MiddleburyCollege/HarvardAsiaQuarterly/Phil gov't/ChinaMaritimeSafetyAdministration

© AFP