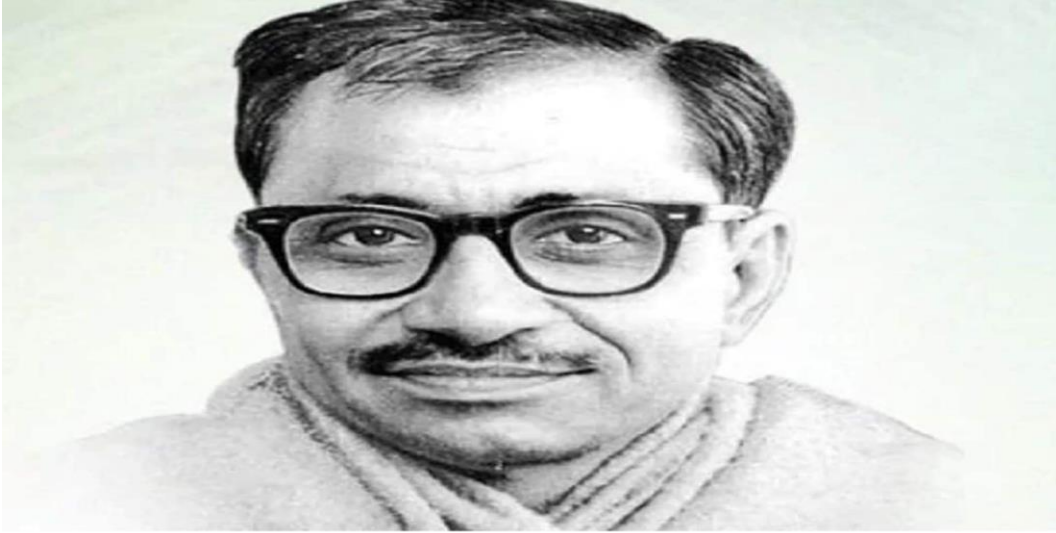


## UPSC CURRENT AFFAIRS NOTES 26-09-2023

### PM pays tributes to Pandit Deendayal Upadhyay at Dhanakya in Jaipur

The Prime Minister, Shri Narendra Modi today paid tributes to Pandit Deendayal Upadhyay at Deendayal Upadhyay National Memorial at Dhanakya in Jaipur. The Prime Minister said "Our government is committed to making life easier for the poorest of the poor in the country by following the principle of Antyodaya."



**Pandit Deendayal Upadhyaya** was born on September 25, 1916, in the sacred region of Brij in the village of Nagla Chandrabhan in Mathura District. His father was a well-known astrologer. An astrologer who studied his horoscope predicted that the boy would become a great scholar and thinker, a selfless worker, and a leading politician - but that he would not marry. While at Bhatpur tragedy struck the family, he lost his brother to illness in 1934. He later went to high school in Sikar. Maharaja of Sikar gave Pandit Upadhyaya a gold medal, Rs. 250 for books and a monthly scholarship of Rs.10.

Pandit Upadhyaya passed his Intermediate exams with distinction in Pilani and left to Kanpur to pursue his B.A. and joined the Sanatan Dharma College. At the instance of his friend Shri. Balwant Mahashabde, he joined the RSS in 1937. In 1937 he received his B.A. in the first division. Pandit Upadhyaya moved to Agra to pursue M.A.

Here he joined forces with Shri. Nanaji Deshmukh and Shri. Bhau Jugade for RSS activities. Around this time Rama Devi, a cousin of Deendayalji fell ill and she moved to Agra for treatment. She passed away. Deendayalji was very depressed and could not take the M.A. exams. His scholarships, received earlier from Maharajaj of Sikar and Shri. Birla were discontinued .

At the instance of his aunt he took a Government conducted competitive examination in dhoti and kurta with a cap on his head, while other candidates wore western suits. The candidates in fun called him "Panditji" - an appellation millions were to use with respect and love in later years. Again in this exam he topped the list of selectees. Armed with his uncle's permission he moved to Prayag to pursue B.T. and at Prayag he continued his RSS activities. After completion of his B.T., he worked full-time for the RSS and moved to Lakhimpur District in UP as an organizer and in 1955 became the Provincial Organizer of the RSS in UP.

He established the publishing house 'Rashtra Dharma Prakashan' in Lucknow and launched the monthly magazine 'Rashtra Dharma' to propound the principles he held sacred. Later he launched the weekly 'Panchjanya' and still later the daily 'Swadesh'. In 1950, Dr. Syama Prasad Mookerjee, then Minister at the Center, opposed the Nehru-Liaquat pact and resigned his Cabinet post and joined the opposition to build a common front of democratic forces. Dr.Mookerjee sought Shri.Guruji's help in organizing dedicated young men to pursue the work at the political level.

Pandit Deendayalji convened on September 21, 1951 a political convention of UP and founded the state unit of the new party, Bharatiya Jana Sangh. Pandit Deendayalji was the moving spirit and Dr.Mookerjee presided over the first all-India convention held on October 21, 1951.

Pandit Deendayalji's organizing skills were unmatched. Finally came the red letter day in the annals of the Jana Sangh when this utterly unassuming leader of the party was raised to the high position of President in the year 1968. On assuming this tremendous responsibility Deendayalji went to the South with the message of Jana Sangh. On the dark night of February 11, 1968, Deendayal Upadhyaya was fiendishly pushed into the jaws of sudden death.

## NESTS (Ministry of Tribal Affairs), in collaboration with Amazon India and Learning Links Foundation, launches Phase II of the ‘Amazon Future Engineer Programme’ for EMRSs

The initiative has the potential to bridge the academic gap existent among tribal communities, ensuring their successful careers in emerging technologies: Shri Arjun Munda.



EMRS Coders Expo, an exhibition of Top 20 Coding Projects from EMRSs during the previous academic year, also inaugurated.

National Education Society for Tribal Students (NESTS), under Union Ministry of Tribal Affairs, launched the Phase II of the ‘Amazon Future Engineer Programme’ in 54 Eklavya Model Residential Schools (EMRS) spread across Andhra Pradesh, Gujarat, Madhya Pradesh, Odisha, Rajasthan and Telangana. The second phase would include an Advanced Block Programming and Artificial Intelligence curriculum. Secretary (Tribal Affairs), Shri Anil Kumar Jha inaugurated the three-day in-person teachers’ training workshop as well as the EMRS Coders Expo, an exhibition of Top 20 Coding Projects from EMRSs during the previous academic year, in New Delhi today.

Based on the encouraging results of last year’s implementation, the revised module will introduce a customized coding and artificial intelligence (AI) curriculum that is aligned with CBSE skill education. This will be in addition to the current courses in coding, logical sequencing, learning loops, and block programming. The 20-hour module is constructed taking into account the current exposure of tribal students to computer science and coding. Class six students will be taught the fundamentals of computer science, seventh standard will be introduced to the advanced concepts of visual programming; grade eight will get



introductory exposure sessions to AI; and grade nine will learn the fundamentals of AI. For grade 10, the AI module aligned with the CBSE skills curriculum will be introduced in the academic year 2024-25.

Union Minister for Tribal Affairs, Shri Arjun Munda who launched the programme's pilot phase, said in a message, "Amazon Future Engineer Programme initiative is a huge step towards ensuring that the succeeding tribal generations become well-equipped to leverage digital opportunities. Collaboration between Amazon Future Engineer programme and NESTS, has the potential to bridge the academic gap existent among tribal communities, ensuring their successful careers in emerging technologies."

Addressing the event, Secretary (Tribal Affairs), Shri Anil Kumar Jha noted that India has a tribal population of over 10 crores, which in many cases still faces language and cultural barriers to access modern education. Bridging these barriers in teaching will go a long way in improving learning outcomes for tribal students. Capacity building of teachers in their local languages, especially for tribal communities in India, will empower them to deliver curriculum in a much-enhanced manner and prepare the tribal students to compete in the technologically advanced world, he said. Shri Jha further encouraged the EMRS teachers to motivate and energize their students to whole-heartedly participate in the programme and learn the basics of coding and AI. He also felicitated the top-three teachers and students during the event.

## **Green Hydrogen Fuel Cell Bus from Kartavya Path, New Delhi**

Reiterating Prime Minister's vision that not only will green hydrogen be the basis of green growth through green jobs but it will also set an example for the world towards clean energy transition, "Addressing the nation from the ramparts of the historic Red Fort in Delhi, Hon'ble Prime Minister announced self-reliance in energy production through a mix of electric mobility, gas-based economy and taking Green Hydrogen on Mission mode," said Union Minister of Petroleum & Natural Gas and Housing & Urban Affairs Shri Hardeep Singh Puri, addressing on the occasion of flagging-off





Flagging-off the first Hydrogen cell bus in presence of young school children, officials and media persons, Shri Hardeep Singh Puri explained the concept of Hydrogen and the benefits of using it as the fuel for future, “The fuel cell utilizes Hydrogen and air to generate electricity to power the bus and the only by-product from the bus is water therefore making it possibly the most environmentally friendly mode of transportation as compared to conventional buses that run on diesel and petrol. With three times the energy density and the absence of harmful emissions, hydrogen shines as a cleaner, more efficient choice to meet the energy requirements.” Additionally, the buses powered with hydrogen cells takes few minutes to fully charge itself, added Shri Puri.

Speaking about the Government’s ambitious plans on clean and green energy, Shri Hardeep Singh Puri said that emerging fuels like hydrogen and bio-fuels shall account for 25% of global incremental energy demand growth over the next two decades. “With one of the largest synchronous grids in the world, we have achieved ‘One Nation-One Grid-One Frequency’, and would soon be global champion in production and exports of Hydrogen and is set to emerge as the Hub for green hydrogen”, he added.

Complimenting Industry and Government’s collaboration in taking India on a global platform and ensuring that it becomes a global hub for cleaner technologies and achieving self-reliance in energy soon, “We were privy to the launch of the world’s first BS 6 (Stage II) Electrified Flex Fuel vehicle prototype that encompasses both the flex fuel engine as well as an electric powertrain that offers higher use of ethanol combined with better fuel efficiencies. Now with flagging-off the first two hydrogen cell buses, we have set the ball rolling and expect another 15 such buses to ply on Delhi NCR roads by the end of this year”, stated the Petroleum Minister.

Marking the green hydrogen powered buses as a game changer for the city transport in the Country, Shri Hardeep Singh Puri complimented IndianOil for undertaking this collaborative approach along with Tata Motors for development of indigenous solutions pertaining to Fuel Cell and hydrogen infrastructure in the country. “Success of this project can catapult India from being net importer of fossil energy to becoming net exporter of clean hydrogen energy”, added Shri Puri.

Speaking on the occasion, Shri Rameshwar Teli said, “The Green Hydrogen Mission which aims to establish a Green Hydrogen ecosystem in India, is on a developmental and progressive path. Hydrogen will be a key player in the transition to a carbon-free economy and will help mitigate climate change. Today’s launch will certainly revolutionize India’s firm commitment of being a cleaner and greener nation.”

Addressing the gathering Shri Pankaj Jain, Secretary, MoP&NG said that we are at a crucial inflection point of technology and mobility. “Today's flag off of Green Hydrogen bus is a symbol of how mobility will transform and how India will move away from conventional fuels. My compliments to IndianOil for this revolutionary foray in hydrogen”. He also encouraged school children to be inquisitive about new green technologies and learn about how these technologies will move us away from internal combustion engines.

Earlier in the day, welcoming the dignitaries, Shri S M Vaidya, Chairman, Indian Oil said that Hydrogen, is poised to be game changer in India's ambitious quest to achieve Net-Zero emissions by the year 2070. “In-line with Hon’ble Prime Minister’s vision for National Green Hydrogen Mission, today’s flag-off of green hydrogen fuel cell buses is a testament to IndianOil's steadfast commitment towards devising sustainable solutions for greening the Mobility sector. With the active support from Govt. of India and Ministry of Petroleum & Natural Gas, this milestone marks a pivotal stride in nation’s journey towards zero emission mobility. Under this program, 15 fuel cell buses will be plying on specified routes in the Delhi NCR Region to establish the performance data under Indian operating conditions. These 15 buses shall cover a cumulative 3 lakh kilometres to establish the efficacy, efficiency and sustainability of the complete value chain.”

**Unified Registration Portal for GOBARDhan introduced by the Department of Drinking Water and Sanitation to streamline the registration of Compressed Bio-Gas (CBG) and biogas plants nationwide**



The GOBARdhan initiative to get a boost as the new guidelines will turbocharge uptake of organic fertilizer produced from the plants.

The Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti has introduced a Unified Registration Portal for GOBARdhan (gobardhan.co.in) to streamline the registration of Compressed Bio-Gas (CBG) and biogas plants nationwide. The DDWS, being the Nodal Department for GOBARdhan, announced that over 1163 biogas plants and 426 CBG plants have successfully registered on the portal to date. These registered CBG/Biogas plants are eligible for assistance under the Market Development Assistance (MDA) scheme of the Deptt. of Fertilizers, Ministry of Chemicals & Fertilizers.

According to the guidelines, MDA of Rs. 1500/MT will be granted for the sale of Fermented Organic Manure (FOM)/ Liquid Fermented Organic Manure (LFOM)/ Phosphate Rich Organic Manure (PROM) produced at BG/CBG plants under the GOBARdhan initiative. Registration of manufacturing plants on the Unified GOBARdhan portal of the DDWS and adhering to Fertilizer Control Order (FCO) specifications for organic fertilizers are pre-requisites for MDA eligibility.

Manufacturing units registered under the Unified registration portal for GOBARdhan can market FOM/LFOM/PROM (co-products of CBG/Biogas plants) through Fertilizer Marketing Companies in packed form or independently in packed form, bulk, or both. Manufacturing plants are allowed to market FOM/LFOM/PROM in bulk/loose form for two quarters (October 2023 to March 2024) on an experimental basis. Quality testing of the manure will be carried out at Government-notified laboratories/NABL accredited private labs.

Department of Fertilizers, Ministry of Chemicals & Fertilizers has rolled out the MDA scheme, with focused guidelines to promote production and uptake of organic fertilizers from Galvanising Organic Bio-Agro Resources Dhan (GOBARdhan) plants.

The MDA scheme has been launched with a robust budget of Rs. 1451.82 Crore spanning three years (FY 2023-24 to FY 2025-26) to promote production and take-up of organic fertilizers generated from GOBARdhan plants inter alia, promoting sustainable/organic agricultural practices throughout the country. Its objective is to drive the widespread adoption of organic manure, ushering in savings for rural households by cutting down reliance on chemical fertilizers/urea. Bio-slurry, has potential to rev up acreage under organic farming and consequent monetary benefits to farmers. The MDA component is also a leveler, ensuring that organic fertilizer producers and farmers play on a fair field. It champions Integrated Nutrient Management, curbing chemical fertilizer overuse.



On the CBG/Biogas plant front, the MDA scheme is a massive booster shot for the sector. As India gears up to meet INDC/climate targets and achieve net-zero commitments, the scheme guarantees the financial health of CBG plants, making them magnets for private investments. Successful FOM/LFOM marketing also in-stills confidence in banking institutions, easing the loan process. For entrepreneurs and private investors, monetizing this co-product accelerates the long-term viability of plants and beckons new players to the burgeoning CBG/Biogas sector.

GOBARdhan, a trailblazing multi-ministerial initiative, is on a mission to transform biodegradable and organic waste, including cattle dung, agricultural residues, and biomass, into high-value resources like biogas, CBG and organic manure. This visionary "Whole of Government" approach not only ushers in the era of high-value Biogas/CBG production but also harnesses the power of bio-slurry - a FOM that turbocharges soil health, carbon content and water retention capacity. When used in conjunction with chemical fertilizers, bio-slurry promotes judicious fertilizer use, slashing urea imports and championing sustainable agriculture. From an economic standpoint, GOBARdhan empowers farmers with organic manure, putting the brakes on their dependence on pricey chemical fertilizers.

Key enablers have played pivotal roles in catapulting the GOBARdhan initiative to new heights, viz. standardizing bio-slurry, RBI's inclusion of CBG plants in Agri Infrastructure Fund (AIF) as well as Agriculture Infrastructure and Development Fund (AHIDF), recalibration of CBG plant categories by the Central Pollution Control Board (CPCB), revisions in the categorization of CBG plants based on feedstock type and wastewater discharge by the Central Pollution Control Board (CPCB) and the revival of the Waste to Energy Scheme of the Ministry of New and Renewable Energy (MNRE) etc. The most recent and critical addition to these enablers is the introduction of the MDA scheme for organic fertilizers produced under GOBARdhan plants.

In a nutshell, the MDA scheme launch aligns perfectly with the twin objectives of efficient organic waste management and bolstering soil organic carbon in agricultural soils, creating fertile ground for organic farming.

Through a combination of existing and forthcoming policy enablers in the Biogas/CBG space, the government's ultimate vision is to expand the reach, awareness, and implementation of Biogas/CBG plants, transforming the sector into a magnet for private sector investments.



## KHALISTAN MOVEMENT



**Canada and India's relation have hit rock bottom after Canadian PM Justin Trudeau accused the Indian government agency of killing Khalistani terrorist Hardeep Singh Nijjar.**

In India, the Sikh independence movement turned out to be a bloody armed insurgency that shook the country in the 1970s and 1980s. The movement centered in northern Punjab state, where Sikhs are the majority.

The insurgency lasted more than a decade and was suppressed by the Indian government crackdown in which thousands were killed including Sikh militant leader Jarnail Singh Bhindranwale.

In 1984, Indian forces stormed the Golden Temple in Amritsar to flush out separatists who had taken refuge there. On October 31, 1984, then-Indian PM Indira Gandhi was assassinated by two of her Sikh bodyguards. Her death triggered a series of anti-Sikh riots.

### **Is the Khalistan movement still going on?**

In Punjab, the Khalistan movement still has some supporters but there is no active insurgency in the state today. Over the years, the Indian government has repeatedly warned that Khalistani terrorists were trying to make a comeback.

The Narendra Modi government has also intensified the pursuit of Khalistani terrorists and arrested dozens of leaders from various outfits that are linked to the movement.

During farmers' protests against the agriculture laws in 2020, the Modi government initially tried to discredit Sikh participants by calling them 'Khalistanis'. Under pressure, the Modi government later withdrew the laws.

Earlier this year, the cops arrested a Sikh leader who had revived calls for Khalistan and stirred fears of violence in Punjab. Amritpal Singh, a 30-year-old preacher, had captured national attention through his fiery speeches. He said he drew inspiration from Bhindranwale.

### **Khalistan movement outside India**

Over the years, India has been asking countries like Australia, Canada, and the United Kingdom to take legal action against Khalistani terrorists. Personally, PM Modi raised the issue with these nations' prime ministers, particularly with Canada where Sikhs make up nearly 2% of the country's population.

Sikh protestors have also pulled down the Indian flag at the country's high commission in London. They smashed the building's window in a show of anger against the move to arrest Amritpal Singh.

India's foreign ministry denounced the incidents and summoned the UK's deputy high commissioner in New Delhi to protest what it called the breach of security at the embassy in London.

The Indian government also accused Khalistan supporters in Canada of vandalizing Hindu temples with "anti-India" graffiti and of attacking the offices of the Indian High Commission in Ottawa during a protest in March 2023.

### **PINK DIAMOND**

- Pink diamonds are among the most costly stones in the world due to their scarcity and beauty.
- More than 90% of all pink diamonds ever were unearthed at the Argyle mine in Australia's far northwest. Most other diamond mines, on the other hand, are in the center of a continent.
- Three elements are required for the production of the Pink diamond. Two of the three components required to create pink diamonds were already known.
- The first component is carbon, which must be more than 150 kilometers underground.
- The second factor is the appropriate amount of pressure used to color the diamonds.
- The third and final missing component was the event that caused the diamonds to rocket to the surface.
- The tremendous pressure that twisted color into the diamonds occurred 1.8 billion years ago during collisions between western and northern Australia.

## The Key Missing Ingredient

Pink diamonds were introduced to the earth's surface by the break-up of the first supercontinent Nuna some 1.3 billion years ago, according to a study published in the journal Nature Communications.

The "scar" from that event was exacerbated as Nuna began to break up.

Magma rushed up through this old scar, carrying the gems with it.

## Significance

Knowing the "missing ingredient" for pink diamonds may aid future efforts to locate the precious stones.

Old mountain belts marking Nuna's split near the boundaries of continents, such as Canada, Russia, southern Africa, and Australia, may also be home to a new "pink diamond paradise."

## Key facts about Nuna

It is an ancient supercontinent that once existed on the surface of our planet.

Nuna is thought to have existed between 1.6 and 2.5 billion years ago, predating even the legendary Pangea by a significant amount.

Nuna's formation is being actively mapped by researchers using geological and paleomagnetic data.

These hints point to Nuna bringing together bits of what we now call North America, northern Europe, and sections of Siberia.

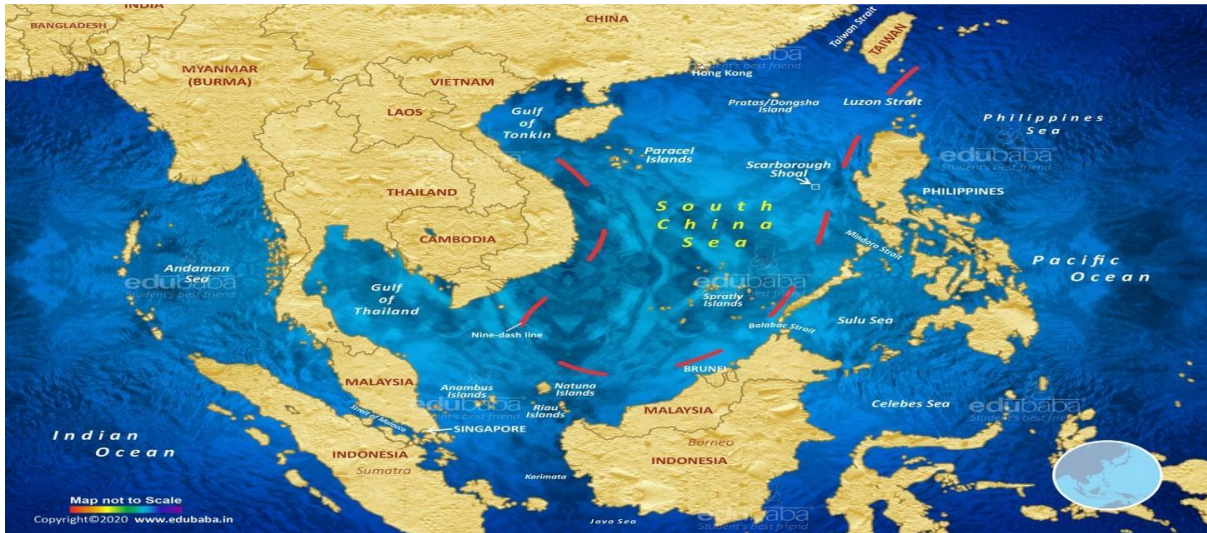
This supercontinent went through several cycles of joining together and breaking apart. The Earth's surface was changed by each stage of assembly and dispersal.

These alterations resulted in the construction of new geological formations, which laid the framework for the following continents.

One of the most exciting discoveries concerning Nuna is its relationship to Earth's atmospheric evolution.

Volcanic activity increased as Nuna developed. These volcanoes emitted massive amounts of carbon dioxide, helping to shape the planet's early atmospheric conditions and possibly impacting the fate of life.

## SOUTH CHINA SEA



### The South China Sea:

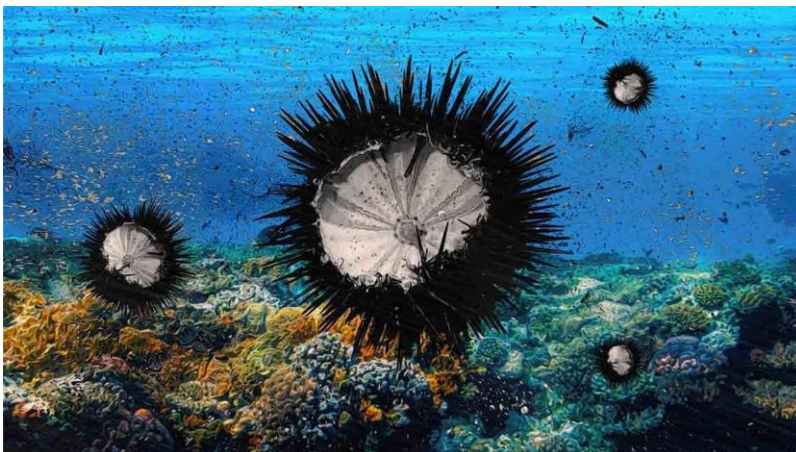
It is a western Pacific Ocean arm that borders the Southeast Asian continent. China, Taiwan, the Philippines, Malaysia, Indonesia, Brunei, and Vietnam form its borders.

- The Taiwan Strait connects it to the East China Sea, and the Luzon Strait connects it to the Philippine Sea (both Pacific Ocean peripheral seas).
- The China Sea is formed by the South China Sea and the East China Sea.
- The Paracel Islands, which China controls, and the Spratly Islands are the two largest archipelagos.
- Climate: The weather at sea is tropical and dominated by monsoons.
- It is the world's second busiest maritime lane. It is an important trading route for crude oil from the Persian Gulf and Africa to Singapore, Thailand, Hong Kong, Taiwan, South Korea, and Japan via the Malacca Strait.
- Hong Kong, Singapore, and Kaohsiung in southern Taiwan are major ports.
- South China Sea Countries
  - The People's Republic of China
  - The Republic of China (Taiwan)
  - The Philippines
  - Malaysia
  - Brunei
  - Indonesia



- Singapore
- Vietnam
- South China Sea dispute
- China's Claim over the South China Sea
- China asserts sovereignty over nearly the entire South China Sea, including the Paracel Islands.
- Taiwan, the Philippines, Brunei, Malaysia, and Vietnam all have claims in the region, which is estimated to have substantial oil and gas deposits.
- China's Proclamation Regarding the South China Sea
- Since 2010, China has been transforming uninhabited islets into artificial islets to put them within the jurisdiction of the United Nations Convention on the Law of the Sea (examples include Haven Reef, Johnson South Reef, and Fiery Cross Reef).
- China has been changing the reefs' physical land features to change their size and structure. It has also constructed airstrips on the Parcel and Spratly islands.
- Chinese fishing boats are more engaged in state-sponsored paramilitary work than in commercial fishing. The United States strongly condemns China's actions.
- **Reasons for Dispute in the South China Sea**
- China, Taiwan, and Vietnam all claim the Paracel Islands.
- China, Taiwan, Vietnam, Brunei, and the Philippines all claim the Spratly Islands.
- The Philippines, China, and Taiwan all claim the Scarborough Shoal.

## RED SEA CORAL REEFS AND SEA URCHINS



The Red Sea's spectacular coral reefs face a new threat. Marine biologists warn—the mass death of sea urchins that may be caused by a mystery disease.

### Red Sea Coral Reefs

- Red Sea coral reefs are the northernmost in the Indian Ocean. Most of the Red Sea coast is rimmed by shallow submarine shelves and extensive fringing reef systems, by far the dominant reef type found here.
- Red Sea fringing reef platforms are over 5000 years old, and the entire coastal reef complex extends along some 2,000 km of shoreline.
- Most such reefs grow directly from the shoreline. The dominant, most actively growing corals include most notably highly branched species of the *genera Acropora and Porites*.
- Such Red Sea coral reef formations are almost certainly the result of the active and unusual tectonic forces that have been at work here for millennia and continue today.
- There are a few true atolls in the Red Sea (several off the coast of Sudan), but no true barrier reefs.

### Characteristics of Red Sea Coral Reefs

- Red Sea corals have developed an unusually high tolerance to the extreme temperatures, salinity, and occasional turbidity (caused by huge seasonal dust storms) that occur in the region. Such conditions that would be lethal or highly damaging to most hard corals found elsewhere.
- Also, water clarity is exceptional in the Red Sea because of the lack of river discharge and low rainfall. Thus, Red Sea reefs are not heavily impacted by the suspension and dissipation of fine sediments that plague reefs in tropical oceans near large land masses.
- Red Sea coral reefs are particularly well developed in the north and central portions (off the coasts of Egypt, Saudi Arabia, Sudan), with large sizable offshore reef complexes containing small islands, fringing reefs, and a variety of reef-associated habitats.
- Further south, coral growth is somewhat inhibited by the influx of nutrient-laden water where the Indian Ocean enters the Red Sea. The surface waters of the more southerly areas are also subject to far greater mixing with deeper water caused by strong winds coming off a high mountainous coast.
- In general, the marine biota of Red Sea coral reefs is characterized by high endemism. For example, of the 1200 or so Coral Reef Fish species recorded, about 10% are endemic (found nowhere else).

- Despite the extreme conditions characteristic of the region, Red Sea coral reefs are generally healthy. There is usually minimal coral bleaching evident, although some localized outbreaks are reported from time to time.

### Sea Urchins

- Sea urchins are members of the phylum Echinodermata, which also includes sea stars, sea cucumbers, sand dollars, brittle stars, and crinoids.
- Like other echinoderms, they have five-fold symmetry (called pentamerism) and move by means of hundreds of tiny, transparent, adhesive "tube feet".
- Urchins typically range in size from 3 to 10 cm, but the largest species can reach up to 36 cm.
- Sea urchins are benthic creatures and eat plant and animal matter, largely preferring kelp, algae, and sponges in their rocky habitats, as well as decaying matter that settle down from the water column.

