History of Disaster in ANI

EARTHQUAKE

Earthquake of 31stdecember 1881 (NNW of the Andaman Islands, Mw 7.9) No recording stations were present at the time, though calculations were made by various agencies of the seismic vertical from the time of the shock recorded at different locations including Kolkata (formerly Calcutta), Vishakhapatnam, Chennai and Sri VijayaPuram. They also recorded the arrivals of tsunamis at different points on the eastern coast of India. The tsunami had a maximum run-up of 1.2 meters on the Coromandel Coast. Damage occurred to masonry buildings at Sri VijayaPuram.

Earthquake of 1941

1941 - Andaman Islands, India, Mw 8.1

- **Date : 26th June 1941**
- **Epicentre : 20.5 kilometres west of Flat Island**
- **Latitude : 12.500° N**
- **Longitude : 92.570° E**
- **Magnitude : 8.1 Mw. (Momentum Magnitude Wave)**

The earthquake of June 26, 1941 is among the strongest earthquakes ever recorded in the Andaman & Nicobar Islands. It had a magnitude of 8.1 (Mw). It was centered in the Bay of Bengal, roughly, 20.5 kilometres west of Flat Island or 96.7 kilometres NNW of Sri VijayaPuram (South Andaman Island). It was the last great earthquake in the Andaman and Nicobar Islands. The 1881 Nicobar Islands earthquake (M 7.9) is the only other event of comparable magnitude.

This 1941 earthquake caused widespread damage on Middle and South Andaman Islands. Most masonry structures in and around Sri VijayaPuram were badly affected. The Cellular Jail which was a 3 storied building with 696 solitary Control Rooms and infamous for the imprisonment, torture and murder of freedom fighters was destroyed as were all the elegant buildings and wide roads, on NetajiSubhas Chandra Bose Island, the administrative centre of the Britishers. The maximum intensity was experienced at Baratang Island, Shoal Bay creek, North of Sri VijayaPuram.

Earthquake tremors of 1982-83

The Great Nicobar Island experienced a series of earthquake tremors during 1982 – 1983.Though the quake was not severe, it kept the people on the tenterhooks. The ex-servicemen settlers were ready to desert the island in the ships.

Earthquake tremors of 2002

Date -	14th September 2002
Latitude -	13.087^0 N
Longitude -	93.112^0 E
Magnitude -	Mw 6.5
Location -	23.6 kms SSE of Diglipur (North Andaman Island)

A major earthquake shook the Andaman Islands at 03:58 AM local time on 14th September, 2002. It had a magnitude of 6.5 (Mw) and lasted for 2 minutes. The earthquake was centered in the Andaman Sea, 23.6 km SSE of Diglipur (North Andaman Island). A jetty at Aerial Bay was also damaged and 3-4 shops nearby collapsed. Diglipur in North Andaman was worst affected. Wooden and bamboo houses were relatively unaffected compared to concrete structures.

2009 Nicobar Islands earthquake: In August 2009, a powerful earthquake struck the Nicobar Islands, causing widespread damage and disrupting life on the islands. ANI provided coverage of the quake and its aftermath, including reports on the rescue and relief efforts and the impact on the local population.

TSUNAMI

2004 Indian Ocean Tsunami: The Andaman and Nicobar Islands were severely impacted by the devastating Indian Ocean Tsunami that struck on December 26, 2004. The tsunami waves, triggered by an earthquake off the coast of Indonesia, caused massive destruction to the islands, killing thousands of people and displacing many more. ANI provided extensive coverage of the disaster, reporting on the rescue and relief efforts and the recovery process.

A tsunami was triggered by this earthquake in the Bay of Bengal. As per journalistic sources, the height of the tsunami was of the order from 0.75 to 1.25 meters. At the time no tidal gauge was in operation. Mathematical calculations suggest that the height could be of the order of 1.0 meter. This tsunami was witnessed along the eastern coast of India. It is believed that nearly 5,000 people were killed by the tsunami on the East coast of India. Local newspapers are believed to have mistaken the deaths and damage to a storm surge.

A tsunami was also experienced on NetajiSubhas Chandra Bose Island and Smith Island. A lighthouse on East Island (uninhabited) was damaged by the earthquake and the tsunami and 50 kilograms of mercury used in the beacon spilled as a result. Tremors from the main shock were experienced on Smith Island, NetajiSubhas Chandra Bose Island, Mayabunder, Kalighat, Baratang and at Sri VijayaPuram. The strongest aftershock was recorded at 01:28:41 AM on 15th September, 2002 and was centered in the Andaman Sea, 12.3 km. west of Saddle Peak (North Andaman Island).

CYCLONE

Cyclones that have affected the Andaman and Nicobar Islands, detailing significant tropical cyclones that impacted the region are:

1891 Cyclone: One of the earliest recorded cyclones in the region. Limited data, but it caused significant damage.

1976 Cyclone: A cyclonic storm caused substantial damage to the islands, affecting infrastructure and agriculture.

Cyclone 1989: A cyclone hit the islands and led to heavy rainfall and flooding, causing disruption to daily life.

Cyclone Phailin (2013): Formed in the Bay of Bengal. Grazed the Andaman and Nicobar Islands before making landfall in Odisha. Brought heavy rains and rough seas to the islands.

Cyclone Hudhud (2014): Cyclone Hudhud hit the Andaman and Nicobar Islands in October 2014, causing widespread damage and disruption to life on the islands. ANI provided comprehensive coverage of the cyclone and its aftermath, including reports on the rescue and relief operations and the efforts to rebuild the affected areas.

Cyclone Vardah (2016): Developed near the Andaman Sea. The islands faced heavy rains and strong winds before the cyclone moved toward Chennai.

Cyclone Pabuk (2019): An unusual storm that originated in the South China Sea and entered the Andaman Sea. Directly impacted the Andaman and Nicobar Islands in January 2019. Led to strong winds, flooding, and evacuations.

Cyclone Fani (2019): Originated near the Andaman and Nicobar Islands before intensifying into a severe cyclone. The islands experienced heavy rainfall and wind during its formation stage, but the storm later moved toward Odisha.

Cyclone Bulbul (2019): The islands experienced the outer effects of this cyclone, with heavy rains and moderate winds, though it eventually moved northward toward West Bengal.

Cyclone Amphan (2020): Initially impacted the Andaman and Nicobar Islands with heavy rains and strong winds before intensifying into one of the most severe cyclones to hit the Indian mainland in recent years.

Cyclone Yaas (2021): Affected the Andaman Sea region with initial rains and strong winds as it intensified and moved towards Odisha and West Bengal.

Cyclone Asani (2022): The storm caused rains and squalls in the Andaman Sea as it moved northwest, eventually weakening before reaching the Indian mainland.

Cyclone Mocha (2023): The cyclone passed by the Andaman and Nicobar Islands, creating rough seas and triggering evacuation alerts. However, it caused minimal direct damage to the islands as it tracked further toward Myanmar and Bangladesh.

FLOOD

Floods in the Andaman and Nicobar Islands have been relatively less frequent compared to the mainland of India, but they do occur, primarily triggered by heavy rainfall associated with cyclones, monsoons, and tidal surges. These islands, due to their geography, are vulnerable to flash floods, localized flooding, and coastal inundation. Here's an overview of the history of flooding events in the Andaman and Nicobar Islands:

Monsoon Floods August 2010: Heavy monsoon rains caused flooding in low-lying areas, especially in parts of Sri VijayaPuram and its surrounding areas. Roads were inundated, and transportation was disrupted. Localized flooding also affected agricultural lands, leading to crop damage.

Cyclone Phailin Flooding October 2013: Cyclone Phailin, a very severe cyclonic storm, passed near the islands before making landfall on the eastern coast of India. Though the cyclone did not directly hit the islands, heavy rainfall and storm surges caused flooding in some coastal areas. The disruption was temporary, but it affected fishing communities and coastal settlements.

2018 floods: The Andaman and Nicobar Islands were hit by severe flooding in August 2018, which resulted in widespread damage to infrastructure and displacement of people. ANI covered the flooding and its aftermath, reporting on the rescue and relief efforts and the measures taken to prevent such disasters in the future.

VOLCANIC ERUPTION

The primary volcanic activities in the Andaman and Nicobar Islands are associated with Barren Island, which is part of the larger tectonic system along the Indian and Burmese tectonic plates. This area is part of the Ring of Fire, known for its high volcanic and seismic activity.

First Recorded Eruption: 1787 (but it is possible the volcano erupted earlier in prehistoric times).

1787 Eruption: The first recorded eruption of Barren Island. Historical records from British sailors described the island erupting lava and ash. No significant documentation exists from this time, but the eruption established Barren Island as an active volcanic site.

1832–1835 Eruptions: The volcano continued to show activity in the early 19th century, with intermittent eruptions observed by passing ships. The eruptions were typically characterized by lava flows and ash emissions.

1991 Eruption: After more than 150 years of dormancy, Barren Island erupted again in 1991. This eruption is considered significant, as it was a major explosive event that released large amounts of ash and lava. It lasted for several months and led to considerable scientific interest, with teams from India and abroad studying the volcano's behavior.

1994–1995 Eruption: The volcano erupted again, emitting large plumes of ash and lava flows. This eruption was similar in style to the 1991 event, though it was slightly smaller in scale. This eruption led to the further study of volcanic gases and seismic activity around the island.

2005 Eruption: Another significant eruption occurred in the aftermath of the 2004 Indian Ocean earthquake and tsunami. This event triggered tectonic and volcanic activity across the region, leading to volcanic eruptions on Barren Island. The 2005 eruption was less explosive but included continuous lava flows and steam emissions.

2017–2018 Eruptions: The most recent notable eruption started in 2017 and continued into 2018. Lava fountains, ash clouds, and minor explosive events were observed. The volcano showed active lava flows down the slope of the mountain into the sea. This eruption was closely monitored by the Indian National Centre for Ocean Information Services (INCOIS) and the Geological Survey of India (GSI). The activity in 2017-18 drew the attention of volcanologists and tourists alike, as it was relatively stable and visible for a long period.

Mud Volcano

Early records by British colonial officials in the 19th century noted the existence of mud volcanoes in the Andaman Islands. However, these were considered geological curiosities rather than being actively studied.

2003 Eruption (Baratang): A major eruption was recorded on February 18, 2003. Another eruption occurred in Baratang, which attracted scientific interest and local attention. Small eruptions are typical of mud volcanoes, with mud slowly oozing out over time.

2004 Indian Ocean Earthquake and Tsunami: The 2004 earthquake, a magnitude 9.1-9.3 mega thrust event, had a profound effect on geological activity across the Andaman and Nicobar Islands. Several dormant mud volcanoes in Baratang and North Andaman were reactivated due to seismic activity. New mud volcanoes were also reported in the region post-earthquake, especially in areas where none were previously observed.

2005 and later: Baratang Activity: After the 2004 earthquake, intermittent eruptions continued in Baratang. The region became a focus of geological studies to understand the effects of seismic activity on mud volcanoes.

2010 Eruption: An active eruption occurred in Baratang, with visible mud flows and gas release.

2017–2018 Eruptions: Small-scale eruptions were reported, consistent with the ongoing activity of mud volcanoes in Baratang.

Similar activity was observed in Diglipur, though on a smaller scale compared to Baratang.

COVID-19 PANDEMIC

Consequent upon the COVID-19 declared as pandemic by WHO and a National Disaster by Government of India, for enhancing the preparedness level for containment of this Novel Coronavirus and other ancillary mattes connected thereto, the A&N Administration had initiated proactive steps w.e.f. 27.01.2020. The administration worked in full cooperation and coordination with the general public and together took steps to contain the Pandemic and successfully made Islands Corona Free Zone on 3 occasions.

a) Preparedness plan/Action plan, including lock down/night curfew plan, was systematically complied under the guidelines of the Ministry of Health and Family Welfare & Home Affairs.
b) The Administration ensured availability of essential items including and social distancing apart from other COVID-19 appropriate behavior.
c) The Administration streamlined all the front-line workers of DHS, Police, District Administration and Disaster Management towards combating Corona virus since January, 2020 till date.
d) To ensure compliance to the containment measures for COVID-19 pandemic management in accordance with the orders issued by the Ministry of Home Affairs, GoI and advisories issued by the Ministry of Health & Family Welfare (MoHFW) from time to time, orders were issued in exercise of the powers conferred under Section 24 (1) of the DM Act, 2005 for its strict compliance in A&N Islands by the Directorate of Disaster Management.
e) During April, 2021, the ferocious 2nd wave was almost contained through the pro-active steps taken by the administration.
f) The NGOs, Anganwadi and ASHA Workers were also included for work in the containment zone and distributed packed food and essential supplies door to door.
g) For the purpose of quarantine and isolation, various govt. accommodations, guest houses and even private hotels were requisitioned across the islands with 6376 Beds available for the COVID patient in these islands.

h) Procured medicines, lifesaving equipment along with oxygen cylinders, ventilators, oxygen concentrators, masks, gloves, face shields, sanitizers etc. by the Directorate of Disaster Management in coordination with ICMR, DHS and ANIIMS. The logistics, materials and drugs were procured in advance to create a buffer stock of three months projection/demand.

i) The 03rd Wave of COVID-19 Pandemic (Omicron) also contained by the Administration, which mainly focused on preparedness that led to very less impact:

    a. Procurement
    b. Quarantine Guidelines
    c. Restrictions on movements
    d. Clinical management

j) The Department has prepared COVID-19 Contingency Plan, the main features are as follows:

    a. Institutional Mechanisms and Inter-Sectorial Co-Ordination
    b. Deployment of Rapid Response Teams (RRT)
    c. Containment Zone
    d. Surveillance in Containment Zone
    e. Mapping of the Containment and Buffer Zones
    f. Covid-19/Omicron Patient Management
    g. Essential Commodities Supply & Stock Position
    h. Communication Status etc.
    i. Contribution of NCC Sr. Cadets during Tsunami & COVID-19.