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Tsunami in India 2004: A case study

Introduction

Tsunami is a result of tectonic imbalance between two fault lines, similar to an earthquake; the only distinguishing feature is they occur in the seabed, leading to rising sea levels and massive waves striking the shores which high velocity and impact. This causes loss of lives and property.

Facts about the Event

The Tsunami resulted in death of more than 220,000 people in the Indian Subcontinent and was responsible for the displacement of more than 1 million people.[1] The magnitude of the earthquake was 9.1 which was the highest seen earthquake since 9.1. The devastating effects were in fact not due to earthquake but due to the Tsunami, where waves reached soaring heights of around 160 feet before hitting the shore. This phenomenon was preceded with warning signs such as drawing back of the sea, increase in height of the waves which were not damaging, which were ignored by the locals who carried out their daily business at the sea.

Epidemiological Aspects of the event

Severe damage was done to the states lying on the east coast of Indian Peninsula which includes Tamil Nadu, Andhra Pradesh and out of these the most severely affected was Andaman and Nicobar Islands. The loss of live, displacement of people from their homes, and damage to properties were the initial and most devastating consequence of the Tsunami. What follows was even more dangerous, compromise in the drainage systems due to floods, outbreaks of water borne diseases like cholera also played their part in contributing to the morbidity and mortality in the region. A total of 1098 villages were affected in all abovementioned regions combined.[2]

Management of the event

The government of India immediately launched rescue and relief operations in co-ordination the with NDRF, followed by temporary rehabilitation of the victims. The national crisis management committee was activated which met within 3 hours and discussed ways to efficiently carry out the required operations. Massive search and rescue operation were launched with the help of the Armed Forces. These were supported by the Central Para-military Forces and the two Medical First Responders (MFR) specially trained teams of the Ministry of Home Affairs. A total of 930 relief camps were set up for over 600,000 people where they were provided with food, drinking water, sanitation and supplied with logistics.

Communication of the event

The communication of the event took place within 3 hours of the natural disaster where the National Crisis Management Committee was activated and mobilized NDRF and Armed forces personnel for rescue and rehabilitation. In my viewpoint, it was not a very efficient way of dealing with such a large-scale disaster. The disaster definitely warrants investigation into the surveillance and monitoring systems in the coastlines. Education of the fishermen and the

people living in the coastal regions can help in better preparedness of the disaster and mitigation to reduce the loss of lives and damage to infrastructure.

Summary

In Summary there is always a lag time between the trigger of the disaster and the damage that is endured because of that. Better Surveillance systems and means of communication and warning signals could have been placed to relocate the at-risk individuals from the primary impact zone. Mobilization of specialists in disaster relief was a good move as these personnel are trained in these activities. Effective communication is of paramount importance in any disaster. Rehabilitation should be installed as soon as possible for people to back to their daily routine and continue with their income gaining activities.

References

1. JetStream Max: 2004 Indian Ocean Tsunami. National Oceanic and Atmospheric Administration. https://www.noaa.gov/jetstream/2004tsu_max
2. India: Tsunami - A report to the nation - India. ReliefWeb. Published June 3, 2005. https://reliefweb.int/report/india/india-tsunami-report-nation