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Course Title: Case Studies of International Projects on Disaster Resilience

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Bhola Cyclone 1970

1. Introduction

The 1970 Bhola cyclone was a devastating tropical cyclone that struck East Pakistan and India's West Bengal on November 3, 1970. It remains the deadliest tropical cyclone ever recorded and one of the deadliest natural disasters. At least 500,000 people lost their lives in the storm, primarily as a result of the storm surge that flooded much of the low-lying islands of the Ganges Delta.

Formed	November 3, 1970
Dissipated	November 13, 1970
Highest winds	3-minute sustained: 185 km/h (115 mph)
	1-minute sustained: 240 km/h (150 mph)
Lowest pressure	960 hPa (mbar); 28.35 inHg
Fatalities	≥ 500,000 total (Deadliest tropical cyclone on record)
Damage	\$86.4 million (1970 USD)
Areas affected	India, East Pakistan

2. Impact

- \checkmark The exact death toll will never be known, but it is estimated to be 300,000 to 500,000 people in total.
- ✓ Over 3.6 million people were directly affected by the cyclone, and the total damage from the storm was estimated at \$86.4 million.
- ✓ The survivors claimed that approximately 85% of homes in the area were destroyed.
- ✓ Ninety percent of marine fishermen in the region suffered heavy losses, including the destruction of 9,000 offshore fishing boats.
- ✓ Of the 77,000 onshore fishermen, 46,000 were killed by the cyclone, and 40% of the survivors were affected severely.
- ✓ Agricultural damage was similarly severe with the loss of \$63 million worth of crops and 280,000 cattle.

3. Emergency Response

3.1 Government response

✓ The day after the storm struck the coast, three Pakistani gunboats and a hospital ship carrying medical personnel and supplies left Chittagong for the islands of Hatia, Sandwip and Kutubdia.

✓ A week after the cyclone's landfall, President Khan conceded that his government had made "slips" and "mistakes" in its handling of the relief efforts. He said there was a lack of understanding of the magnitude of the disaster.

3.2 International Response

- ✓ India became one of the first nations to offer aid to Pakistan. By the end of November had pledged \$1.3 million of assistance for the relief efforts.
- ✓ US President Richard Nixon allocated a \$10 million grant.
- ✓ British Disasters Emergency Committee raised about £1.5 million for disaster relief.
- ✓ The Canadian government pledged \$2 million of assistance.
- ✓ France and West Germany both sent helicopters and various supplies worth \$1.3 million.
- ✓ The Vatican later contributed \$100,000 to the relief efforts.
- ✓ The government of Singapore sent a military medical mission to East Pakistan. They were then deployed to Sandwip where they treated nearly 27,000 people
- ✓ The Japanese cabinet approved a total of \$1.65 million of relief funds in December.
- ✓ The Chinese government sent \$1.2 million in cash to Pakistan.
- ✓ The United Nations donated \$2.1 million in food and cash.
- ✓ By the end of November, the League of Red Cross Societies had collected \$3.5 million to supply aid to the victims of the disaster.
- ✓ The World Bank estimated that it would cost \$185 million to reconstruct the area devastated by the storm.

3.3 Political consequences

The situation deteriorated further and developed into the Bangladesh Liberation War in March. This conflict widened into the Indo-Pakistani War of 1971 in December and concluded with the creation of Bangladesh. This was one of the first times that a natural event helped to trigger a civil war.

4. Post-disaster

In 1966, the Red Crescent had begun to support the development of a cyclone warning system, which developed into a Cyclone Preparedness Program in 1972, today run by the Government of Bangladesh and the Bangladesh Red Crescent Society. The program's objectives are to raise public awareness of the risks of cyclones and to provide training to emergency personnel in the coastal regions of Bangladesh.

In the 30 years after the 1970 cyclone, over 200 cyclone shelters were constructed in the coastal regions of Bangladesh.