Hurricane/ Cyclone Fani

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Challenges and

Some relief efforts were hampered

by extensive damage. Many large trees were uprooted and toppled

onto roads in Puri district.

according to a government

spokesman, but road restoration

work had already begun the same

night. The medical and relief team

were the first to respond to the

Obstacles

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Storm Lashes Coast With Hurricane Strength

ani was a deadly tropical storm on 2nd May 2019, that hit the Indian state of Odisha nd caused damages that cost over 8 million USD both in India and Bangladesh. lectricity supply and telecommunication was cut off in the coastal areas and hence eeded nationwide recovery response and efforts. Cyclone Fani, one of the strongest orms to batter the Indian subcontinent in decades, made landfall near Puri, India, on riday morning, lashing the coast with winds gusting at more than 120 miles per hour. By Friday night, the storm was over coastal Odisha, according to India's deteorological Department, and appeared to be weakening. Tens of millions of people were in the eyelone's path. India and Bangladesh each evacuated more than a million eople from coastal areas. Large sections of coastal India and Bangladesh were hreatened by storm surges, and heavy rains could cause rivers to breach. The ast-moving storm struck the coast with the force of a major hurricane. Several hours fter it made landfall, the cyclone was downgraded to a "very severe" storm from an 'extremely severe" storm. At 11:30 p.m. in India, the storm's center was about 90 miles outhwest of Kolkata and moving northeast toward Bangladesh, the meteorological epartment said. The cyclone was packing extra force because of climate change. which was linked to intensified storms in warm, wet areas as well as severe drought in drier regions.

ormed 26 April 2019 issipated 5 May 2019 Remnant low after 4 May) lighest winds 3-minute sustained: 215 km/h (130 mpl minute sustained: 250 km/h (155 mph) owest pressure 932 hPa (mbar); 27:52 inHs as affected Odisha, Andhra Pradesh, Fast India, Bangladesh, Bh

Predicted path of Cyclone Fani



The Power of Citizen Participation

The efforts of the state to carry out successful evacuations highlight good disaster management planning. The authorities deployed repeated warnings through satellite phones, which helped in the process of setting up safe shelters. The use of local networks and tapping of the region's social capital played a major role in supporting this rescue operations. Citizen participation and support is often crucial in times of disasters and can help save many lives. During Fani too, a point worth noting was the cooperation of the citizens with the rescue teams. When unprepared, people for back away from joining rescue operations and insist on staying locked up in the homes because they perceive the risk inaccurately. Such actions often prove to b unproductive since houses - in most cases, built with concrete or wood in India collapse, adding to the disaster, slowing down operations and losing prectous time. It highlights how disaster preparedness and training for the local communities is requisite, particularly in vulnerable regions.

Long-term resilience strategy is key

Having averted the worst consequences of Fani, the state is looking ahead at questions pertinent to most vulnerable coastal regions around the world. With rising sea levels and changing sea surface temperatures, more and more regions around the globe are faced with the threat of frequent flooding and disasters. To design effective resilience strategies, there is a need to look deeper. Damages by cyclones are generally attributed to four causes - winds, floods, lightning and storm surges. even though Fani was a rare summer cyclone, it was one of the few that followed its predicted path as projected by the IMD. Very few cyclones do so, and deviation from projected paths is what makes rehabilitation efforts generally more difficult. In addition, cyclones generally take around 7 days to form - but Fani took a period of 10 days, and this gave the authorities added time to prepare. These factors, coupled with the disaster management measures carried out by the state, helped limit the damages caused by the cyclone.



The image on the right illustrates the vulnerable conditions of the people without homes and the intensity of the catastrophe.

The local team assesses the affected field, gauge the devastation and coordinated for relief campaigns in urban hubs. Network of partners. contributors, stakeholders and masses will be activated for relief operations. The biggest need was covering huge operational cost and to purchase urgent bulk items like tarpaulins, dry ration, blankets, solar lanterns & tool kits.

The government's "zero casualty" policy for natural disasters and the near accuracy of the India meteorological department's early warning system have helped reduce the possibility of deaths from cyclone Fani. A record 1.2m people (equal to the population of Mauritius) were evacuated in less than 48 hours, and almost 7,000 kitchens, catering to 9,000 shelters, were made functional overnight. This mammoth exercise involved more than 45,000 volunteers.



Recommnedations for the Future

There are several ways in which schools and beyond can help people who have been affected by Hurricanes and cyclones. The first such way would be to start a charity fund drive. It is common knowledge that recovering from a disaster takes years and the needs tend to change over time as well. This is the reason why any nonprofit group right now would ask you to donate cash rather than items as such. This is because with the passage of time such items may not be as useful but cash would always be useful.

There are plenty of steps that education systems can think of and take for purposes such as these:

- 1. Donate blood for those injured
- 2. Feeding the children and the poor
- 3. Using social media to create awareness and accuracy of early warning systems
- 4. Emergency medical units and uninterrupted supplies
- 5. Communicating with people to understand the impact it has had on others
- 6. Donate to the Government Relief Fund
- 7. Donation through apps such as Amazon



Source: "GlobalGiving.org." GlobalGiving, www.globalgiving.org.
Bosunia, M. Shamim Z. "Design Criteria for Shelters in Coastal Areas of Baugladesh Under Multipurpose Cyclone Shelter Program." Wind Storm and Storm Suege Minigston, 2019. pp. 94–106, doi:10.1061/9780744-10813.eb/98.

Patel, Sangram. "Community-Level Assessment of Floods and Cyclones in Coastal Odisha, India: Impact, Resilience, and Implications." A Review of Cyclone and its Impact on the Coastal Belts of Odisha, 2018,