Ripple Effects

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Zhala Mammadli



The Ripple Effect

Figure 1: People wade through floodwaters in Feni, among the worst-hit areas in Bangladesh, on August 23 [Munir Uz Zaman/AFP]

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Natural disasters have long been a recurring problem in Asia, causing significant economic disruption. The shocks to industry and trade, which reverberate through regional and global systems, are among their most notable consequences. In addition to putting the resilience of the impacted countries to the test, these economic disruptions have a significant impact on international relations and security, which in turn shapes the dynamics of the region. The report focuses exclusively on how natural disasters affect

trade and industry, as well as how they affect international relations and security. This report aims to address a crucial question: How do natural disasters affect Asia's trade and industry, and what are the wider ramifications for international relations and regional stability?

Due to their heavy reliance on regional supply chains and trade, Asia's interconnected economies are especially susceptible to natural disasters (Asian Development Bank, 2021). Events like tsunamis and monsoons stop production and block important shipping lanes, which has a domino effect on trade routes and economic interdependence (Chua et al., 2024). For example, the 2011 tsunami in Japan caused delays and shortages all over the world by upsetting global supply chains in the automotive and technology sectors in addition to destroying local industries (Collins, 2011). During this time, global automobile exports decreased by about 20%, and production in some industries was delayed by up to six months (Collins, 2011). Even though it wasn't a natural disaster in the conventional sense, the COVID-19 pandemic brought attention to weaknesses in global supply chains, and its effects are still being felt in 2023 (Harapko, 2023). Shipments were delayed by an average of three to four weeks as a result of the pandemic-induced disruptions to shipping and logistics, which exacerbated the effects of natural disasters like the 2020 Typhoon Goni in the Philippines, which stopped trade and severely damaged ports (OCHA, 2020).

Geopolitical repercussions are frequently the result of these disruptions. Strong trade ties may lead to more opportunities for cooperation but may also heighten tensions between nations. As an illustration, regional stability has been enhanced and trade shocks have been lessened thanks to collaborative recovery initiatives, such as ASEAN's logistics sharing frameworks (ASEAN, 2024). On the other hand, when resource allocation becomes a controversial topic, disparate recovery capacities can worsen dependencies and strain alliances (ASEAN, 2024). Disaster-related disruptions compelled a reassessment of trade agreements to guarantee increased resilience and mutual security, as demonstrated by the aftermath of the 2004 Indian Ocean tsunami (ASEAN, 2024).

Because of their geographic concentration and reliance on international markets, certain trade-related industries are more severely impacted by natural disasters. For instance, agriculture is especially vulnerable to flooding and other severe weather conditions. Frequent floods in Bangladesh harm export crops, which lowers farmer incomes and strains trade ties with partner countries that depend on agricultural imports (Paul, 2024). In 2022, flooding caused Bangladesh's rice exports to drop by 35%, affecting regional food security and resulting in losses of about $1.5 billion (Paul, 2024). Likewise, manufacturing centers in South Korea and Japan encounter major production difficulties following typhoons or earthquakes, which cause delays in products like cars and electronics that are essential to global supply chains (Gray & Shigemitsu, 2021). The 2021 floods in China's Henan province caused significant disruptions to logistics and manufactur-

ing, stopping production in one of the nation's most important industrial areas and causing a six- to eight-week delay in the export of goods (Global Times, 2021).

Logistics and shipping are another significant weakness. Typhoons and tsunamis frequently disrupt major ports in disaster-prone areas like Indonesia and the Philippines. Trade flows throughout the Asia-Pacific region were delayed by the temporary closure of ports during Typhoon Haiyan in 2013, which highlighted the strategic importance of protecting vital trade infrastructure (Kuhla et al. 2013). Similar to this, Typhoon Rai in 2021 severely damaged Cebu's international port, a vital trading hub in the Philippines, causing weeks-long delays in the movement of goods and a 25% decline in regional shipping volumes (Kuhla et al., 2013). Strong international assistance and trade alliances are frequently essential for recovery from these shocks. For example, Japan's current bilateral trade agreements and quick assistance from nearby countries sped up its recovery from the 2011 tsunami (Kodama, 2021).

Natural disaster-induced trade disruptions have a direct impact on international relations and regional security. Economic vulnerabilities in countries that are prone to disasters, may result in a greater dependence on outside assistance, generating dependencies that change the geopolitical landscape (Embassy of Japan in the Philippines, 2021). As demonstrated by Japan's $500 million aid commitment to the Philippines after Typhoon Haiyan, aid-giving nations can increase their influence(Embassy of Japan in the Philippines, 2021). In the wake of the 2022 economic crisis that was made worse by flooding, China's Belt and Road Initiative has more recently expanded its reach by making post-disaster recovery investments in nations like Sri Lanka (Chatnam House, 2020).

Furthermore, differences in recovery capacities frequently point to underlying differences in regional stability. Reduced competitiveness may result from disaster-affected countries' difficulties rebuilding their trade infrastructure, which could cause diplomatic tensions over trade imbalances (Guo &Quayyum, 2020). However, natural disasters also present chances for strategic alliances. Initiatives for bilateral and multilateral aid, like cooperative investments in resilient infrastructure, can serve as measures to boost confidence, strengthen partnerships, and reduce future risks(DRRRF, 2018).

Because they destabilize areas, natural disasters also increase security concerns. Trade and industrial disruptions can make resource scarcity worse, which can result in rivalry or disputes over essential supplies (Jadhav, 2024). For instance, countries may prioritize domestic needs when supply chains for necessities like food or energy are disrupted, leading to disagreements over trade policies or export restrictions (Jadhav, 2024). In severe situations, protracted economic instability can fuel social unrest, pressures from migration, or even insurgency (Rocha et al. 2022). One example of how disasters can exacerbate pre-existing social tensions is the aftermath

of Typhoon Odette (Rai) in 2021, which caused localized conflicts over resource distribution in parts of the Philippines (Rocha et al. 2022).

Focusing on trade and industry demonstrates how natural disasters alter international relations in Asia and upend economic stability. Not only do disruptions to trade routes, manufacturing, and agriculture put countries to the test, but they also reshape regional power dynamics and alliances. Investments in disaster-resilient infrastructure and collaborative recovery initiatives provide avenues to improve diplomatic relations and economic security. The ramifications for international relations and security are enormous. However, countries can transform the difficulties posed by natural disasters into chances and promote regional stability and redefine security frameworks by tackling trade vulnerabilities in an equitable and cooperative manner.

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