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Cyclone Mocha and Return of El Niño: A Crisis of Climate-Conflict-Humanitarian Triple Nexus in Myanmar



Photo: Reuters

People amidst the aftermath of destruction caused by Cyclone Mocha

Event

Cyclone Mocha, one of the strongest storms ever to hit the Bay of Bengal, made landfall near Sittwe on May 14, 2023. It wreaked havoc on nearly 5.4 million people living in Rakhine State and surrounding areas in its path, causing widespread destruction across Sittwe and creating a potential humanitarian crisis for a highly vulnerable population of as many as 3.2 million people, according to a statement from the UNOCHA. Cyclone Mocha is the first storm to hit in this year's monsoon season, but it coincides with the development of the El Niño phenomenon.

Preliminary Analysis

Cyclone Mocha inflicted the most significant damage since Cyclone Nargis, which made landfall in Myanmar in 2008 and killed tens of thousands across the Ayeyarwady Region as the country's worst natural disaster in its recorded history. Cyclone Mocha struck the coastline north of Sittwe with winds of up to 209 kilometers per hour, ranking it as a Category Five on the Saffir-Simpson Hurricane Wind Scale. This latest devastating cyclone has implications for the country's wider humanitarian, political and social crises that need to be considered.

The first relates to Myanmar society's resilience to natural disasters. The country's civil society has been effectively demobilized since the military coup, and its social capital continues to weaken. Responding effectively to natural disasters such as Cyclone Mocha by delivering emergency assistance to affected communities requires not only international aid but strong social capital (i.e. resourcefulness and cohesiveness within society, a high level of volunteerism, generosity, and human kindness), all of which relates to a society's resiliency.

Cyclone Mocha cannot be considered an isolated event. It is a harbinger of more disasters to come as a consequence of the El Niño phenomenon. Myanmar is already vulnerable to severe weather effects caused by El Niño. Now the country faces a potential 'double jeopardy' over future natural disasters as it continues to struggle with ongoing internal political strife. Society could face a downward spiral into an even more desperate humanitarian disaster. In recent years, Myanmar has suffered almost simultaneously from the COVID pandemic and a military coup. The strain from additional protracted catastrophes could outstrip Myanmar's ability to help itself and leave the country vulnerable to becoming a failed state.

A second important consideration is how additional natural disasters could transform the existing landscape of conflict. Cyclone Mocha left a trail of destruction across Rakhine State, Chin State, Magwe Region and Sagaing Region — all of them currently active conflict zones since the coup. The cyclone's devastating effects, along with the ensuing social complications, will further intensify the distress faced by both the local population and the armed resistance groups in these areas. In contrast, Cyclone Mocha had a comparatively lesser impact on the power dynamics and interests of the State Administrative Council (SAC). The combined taxes collected by the SAC from Rakhine State, Chin State, Magwe Region, and Sagaing Region ▶

■ **El Niño**

El Niño is a naturally occurring phenomenon that results from interactions between the ocean surface and the atmosphere over the tropical region of the Pacific Ocean. As surface temperatures rise above their normal range near the western coast of South America, tropical rainfall patterns are affected. El Niño conditions typically occur every three to five years, but the phenomenon is currently observed more frequently, about once every two or three years. El Niño affects the global climate and can result in extreme weather patterns.

■ **How long does El Niño typically last?**

El Niño typically lasts between 9 and 12 months. It begins in March-June and reaches peak intensity in December-April, before subsiding from May-June. In some instances, El Niño conditions can persist for up to four years.

■ **Impacts**

The El Niño phenomenon can cause a wide range of health problems, drought, loss of crops, severe storms, acute floods, increased rainfall, and depleted fresh water supplies. In addition, extreme heat can lead to a wide range of public health problems, such as disease outbreaks, malnutrition, heat stress, respiratory diseases, and fire hazards.

Source : The above information about El Niño conditions was extracted from the factsheet “What are La Niña and El Niño and why do they matter?”, published by the U.S. National Oceanic and Atmosphere Administration (NOAA).

▶ make up only 8.5 percent of the country’s total revenue and only 23.7 percent of the nation’s total GDP. For resistance groups, which rely on popular support and scarce resources, the cyclone presents a huge threat to the existence of individual parties and will affect their operations. Meanwhile, the SAC will gain a greater advantage from this and future natural disasters. While resistance forces struggle to ease the burden of the populations they serve because of these emergencies, the resourceful SAC can manipulate the situation politically and militarily, creating a watershed moment that could dramatically alter the balance of power across the country.

A final consideration relates to how persistent climate crises could lead to massive migration and further disunity caused by strife between local communities and migrant populations displaced by natural disasters. It is likely that vulnerable populations along the coast will migrate inland as the effects of climate change grow stronger. Struggling to cope with these challenges and the difficulty of maintaining livelihoods as resources become more scarce will likely cause further disruptions to traditional society. The ▶

■ Myanmar and El Niño

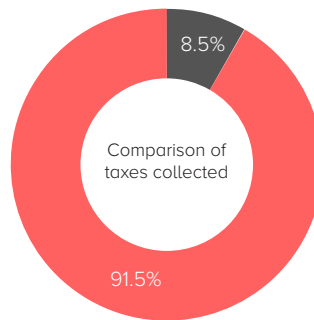
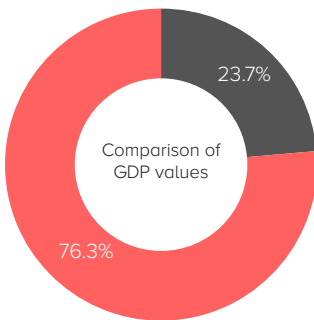
Myanmar was susceptible to the severe effects of El Niño in 1997-1998. During that period, 18 cities in Myanmar experienced record-breaking temperatures while 15 cities experienced record levels of rainfall. The years were recorded in Myanmar's recent history, as vulnerable to negative impacts on economic, social, health, agricultural, and rebuilding. Myanmar meteorologist, U Tun Lwin analyzed the El Niño episode encountered in 2015-16 as the most extreme in 500 years of history with the highest temperature recorded in Myanmar's dry zone, such as the Sagaing, Mandalay, and Magwe regions. The World Meteorological Organization (WMO) said on May 3, 2023, that El Niño "would likely fuel higher global temperatures" and warned: "The world should prepare for the development of El Niño, which is often associated with increased heat, drought, or rainfall in different parts of the world."

Source : The above information is based on discussions with the late Myanmar meteorologist U Tun Lwin and statements from the World Meteorological Organization (WMO).

► occurrence of such a massive migration has the potential to exacerbate Myanmar's existing political challenges, specifically regarding the structuring of federal units. Furthermore, scarce resources could drive new levels of conflict among intra-ethnic groups. This negative progression would have devastating consequences for the country. The climate crisis that could spark this progression is not distant, and indications could be witnessed as soon as the next decade.

■ Comparison of Socio-economic situations in four areas along the storm trail

Combined taxes collected from the four regions (namely, Rakhine and Chin states, Sagaing and Magwe regions) make up 8.5 percent of the country's total revenue and 23.7 percent of the nation's total GDP.

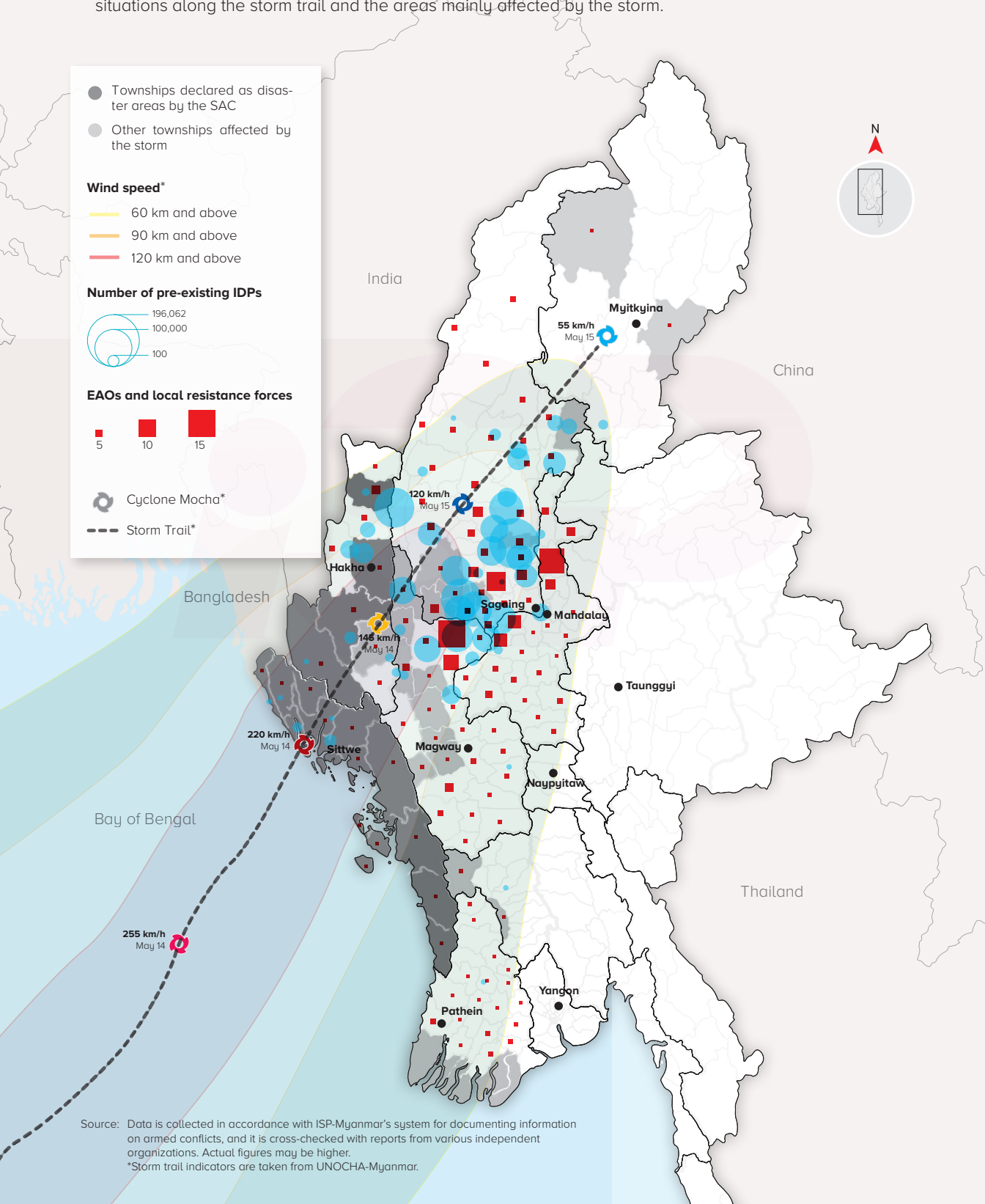
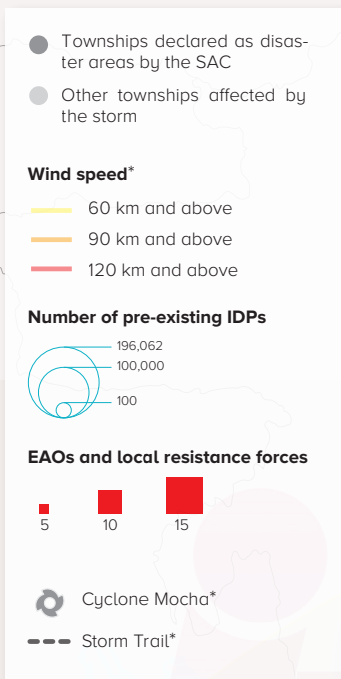


■ GDP value of four storm regions ■ Taxes collected from four storm regions
 ■ GDP value of the remaining regions ■ Taxes collected from the remaining regions

Reference: Data presented here is based on the data published by the SAC's Ministry of Finance and Planning for Fiscal Year 2022-23.

Cyclone Mocha Trail and Myanmar's Conflict Landscape

This map depicts Ethnic Armed Organizations (EAOs), local resistance forces, and the pre-existing IDP situations along the storm trail and the areas mainly affected by the storm.



Source: Data is collected in accordance with ISP-Myanmar's system for documenting information on armed conflicts, and it is cross-checked with reports from various independent organizations. Actual figures may be higher.
 *Storm trail indicators are taken from UNOCHA-Myanmar.

Scenario Forecast

Myanmar is susceptible to the severe effects of the El Niño phenomenon. Additionally, Myanmar’s resiliency has been effectively weakened by violent conflicts and their repercussions. The development of El Niño and future natural disasters could affect Myanmar’s politics, rule of law, health, education, and food security as the country’s ecology is changed. Extreme heat, drought, and changing weather patterns will make a considerable impact on agriculture and lead to crop loss, rising food prices, increased food insecurity, and widespread public health crises.

In addition, the El Niño phenomenon and its resulting natural disasters could lead to a severe humanitarian crisis in areas of Myanmar currently experiencing violent conflicts and threaten the survival of the armed resistance movement, which has already been struggling from scarce resources. Many ▶

■ Cyclone Mocha’s Devastation: SAC Released Destruction Report

According to the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre), Cyclone Mocha has caused an estimated USD 35 billion in destruction, which accounts for approximately half of Myanmar’s GDP in 2022. The State Administrative Council (SAC) has recently published detailed data on the extent of the damage incurred, as of May 19, 2023.

Category	Number
Houses	183,024
Religious Buildings	1,711
Monasteries	59
Schools	1,397
Hospitals and Clinics	227
Office buildings	328
Airports (Sittwe, Kyaukphyu)	2
Markets	1
Lamp Posts	119
Telecommunication Posts	11
Transformers	5
Loss of Life	145

- ▶ of the resistance movements could face the difficult choice of deciding whether to assist the vulnerable communities they depend on or to focus on their own survival. The provisional truce between the Arakan Army (AA) and the SAC in Rakhine State might prove to be an instructive case study. The ceasefire can be expected to last at least six months because of rebuilding from the impact of Cyclone Mocha. It is likely that AA has emphasized the importance of rebuilding and rehabilitating local communities. The SAC could manipulate the situation to gain military and political advantages by taking credit for the provision of international humanitarian aid.

Lastly, Myanmar's current armed struggles against the military junta could be further complicated by the effects of the El Niño phenomenon and climate change—mass migration, increased fragmentation of society, and new forms of conflict. Future natural disasters could lead to a “survival of the fittest” mentality as society moves further from the rule of law and closer to the “law of the jungle.” As a result, Myanmar could be caught in a vicious cycle of conflict. Therefore, all stakeholders have an obligation to save the country from becoming a lost cause by proactively seeking international aid to confront the coming climate challenges, and by seeking innovative ways of cooperation to escape from the trap of endless climate, political, and humanitarian crises.

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