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## Natural Disasters in South Asia: How Governments Maintain Legitimacy in the Wake of Natural Disasters

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**Abstract:** The article focuses on the effect of natural disasters on the legitimacy of South-Asian governments. The likelihood of a government to face a legitimacy crisis in a post-disaster context depends on the following parameters: 1) the frequency of disasters, 2) the quality of government response to disasters, 3) the type of political regime. This article introduces two case studies of Bangladesh and India in the aftermath of cyclone Aila in 2009. Both governments demonstrated poor preparation, as well as an inadequate immediate and long-term response, which resulted in public criticism, anti-government protests, and anti-president votes. When opposition parties converted the public frustration into broader political mobilization, the trust to the official governments plummeted, causing a crisis of legitimacy. Contrary to popular belief, democracy may not provide the easiest political environment for effective disaster response. The level of state response depends on the political security anxieties, the extent of administrative effectiveness, the corruption level, the role of the military in the disaster response, the socio-economic issues of the people affected, and the political leadership competition during the disaster management process. This study provides a deeper understanding of disaster-induced political and social tensions in Bangladesh and India. As too much of their energy was spent on disaster management, it diminished their ability to control. Political leaders in Bangladesh and India used disasters as opportunities to strengthen patronage and reject political opposition in affected areas.

**Keywords:** democracy, disaster management, legitimacy, natural disasters, political tension, Bangladesh, India

**Citation:** Dayananda Chathurika, Marikar Faiz. Natural Disasters in South Asia: How Governments Maintain Legitimacy in the Wake of Natural Disasters. *Vestnik Kemerovskogo gosudarstvennogo universiteta. Seriya: Politicheskie, sotsiologicheskie i ekonomicheskie nauki*, 2025, 10(4): 523–533. <https://doi.org/10.21603/2500-3372-2025-10-4-523-533>

Received 11 May 2025. Accepted after review 9 Jun 2025. Accepted for publication 9 Jun 2025.

оригинальная статья

## Стихийные бедствия в Южной Азии: как правительства сохраняют легитимность после катастроф

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**Аннотация:** Цель – изучить влияние стихийных бедствий на легитимность правительств стран Южной Азии. Вероятность того, что правительство столкнется с кризисом легитимности на фоне стихийных бедствий, зависит от следующих параметров: 1) частоты стихийных бедствий, 2) качества реагирования правительства на стихийные бедствия, 3) типа политического режима. Представлены два тематических исследования последствий циклона Айла в Бангладеш и Индии в 2009 г. Оба правительства продемонстрировали плохую подготовку, а также неадекватную немедленную и долгосрочную реакцию, что привело к общественной критике, антиправительственным протестам и антипрезидентским голосованиям. Когда оппозиционные партии превратили общественное недовольство в более широкую политическую мобилизацию, доверие к официальным правительствам резко упало, что привело к кризису легитимности. Вопреки распространенному мнению, демократия может оказаться не самой простой политической средой

для эффективного реагирования на стихийные бедствия. Уровень реагирования государства зависит от политических опасений в области безопасности, степени административной эффективности, уровня коррупции, роли вооруженных сил в ликвидации последствий стихийных бедствий, социально-экономических проблем пострадавших людей и конкуренции за политическое руководство в процессе ликвидации последствий стихийных бедствий. Статья позволяет глубже понять политическую и социальную напряженность, вызванную стихийными бедствиями, в Бангладеш и Индии. Так как слишком много их энергии было потрачено на борьбу со стихийными бедствиями, это ослабило способность контролировать ситуацию. Установлено, что политические лидеры Бангладеш и Индии использовали стихийные бедствия как возможность усиления покровительства и подавления политической оппозиции в пострадавших районах.

**Ключевые слова:** демократия, борьба со стихийными бедствиями, легитимность, стихийные бедствия, политическая напряженность, Бангладеш, Индия

**Цитирование:** Даянанда Чатурика, Марикар Фаиз. Стихийные бедствия в Южной Азии: как правительства сохраняют легитимность после катастроф. *Вестник Кемеровского государственного университета. Серия: Политические, социологические и экономические науки*. 2025. Т. 10. № 4. С. 523–533. (In Eng.) <https://doi.org/10.21603/2500-3372-2025-10-4-523-533>

Поступила в редакцию 11.05.2025. Принята после рецензирования 09.06.2025. Принята в печать 09.06.2025.

## Introduction

National governments have to cope with major natural disasters, such as earthquakes, tsunamis, floods, volcanic eruptions, hurricanes, etc. While most natural disasters are unavoidable, they may have serious political consequences for governments [1]. They may threaten to undermine popular support as well as the legitimacy of the political system in general. A legitimacy crisis, when it occurs, is not a direct result of a natural disaster but a consequence of people's perceptions of the government's preparedness, emergency response, and recovery efforts [2]. People may not blame their government for bad luck and may not expect perfect prevention of damage and fatalities; yet, they will be likely to expect their government to respond to disasters in an effective and accountable manner. The quality of government response to a disaster, thus, becomes an influential variable affecting the political environment in which the post-crisis political system is embedded [3]. A well-prepared government that is able to respond effectively and accountably is likely to enjoy the support of the people.

A prominent example of successful political maneuvering of disaster events is the 2002 Elbe flashflood in Germany, where Gerhard Schröder's timely and liberal relief and rehabilitation efforts earned him a win in the national election in the same year<sup>1</sup>. Government disaster response can also facilitate national integration. In 2004, the Indonesian government used an Indian Ocean Tsunami to expedite an ongoing peace

agreement in the Aceh province, which eventually achieved loyalty of the Aceh rebels to the Indonesian state and its government [4]. After a flashflood of 2010, the newly elected government of Pakistan dramatically lost public support, allegedly due to its inattentiveness to the crisis [5].

This article describes how major natural disasters contribute to the legitimacy of the government. Natural disaster events kill thousands and affect even more people, destroy millions of dollars of wealth, and cause shocks to economic growth. While governments are not responsible for these events and may not have the know-how to prevent damage and fatalities, they often face the challenge of maintaining the post-disaster context.

The article focuses on following questions. Given that the disaster legitimacy relationship must translate through government's disaster responsiveness, how does the quality of government response to a given disaster event affect its legitimacy in the post-disaster context? Why and in what contexts are some governments able to translate crisis events to their political benefit while others act in ways that undermine their political legitimacy? How does the location of the disaster-affected area within the country correlate with the quality of the government response?

Democratic, authoritarian, and hybrid political regimes demonstrate their own strengths and weaknesses in disaster management. Democracies, e.g., Japan, often emphasize transparency, public

<sup>1</sup> Berlemann M., Hausteine E., Steinhardt M. F., Tutt J. Do natural disasters affect household saving? Evidence from the August 2002 flood in Germany, Discussion Paper, No. 2024/4. Berlin: Freie Universität Berlin, School of Business & Economics, 2024. <https://doi.org/10.17169/refubium-45307>

accountability, and decentralized response systems. For instance, Japan's handling of the 2011 Tōhoku earthquake showcased the benefits of local autonomy and community preparedness<sup>2</sup>. However, democracies may face slower response times due to bureaucratic procedures and the need for consensus. In contrast, authoritarian regimes, such as China, can mobilize resources and enforce compliance more rapidly, as seen in the 2008 Sichuan earthquake [6]. Yet, these regimes often lack transparency, restrict information flow, and may suppress early warnings or post-disaster data to maintain political control.

Quantitative data further clarifies these differences. A cross-national study found that authoritarian regimes are 20–30% faster in mobilizing emergency responses but 25% more likely to underreport disaster impacts [7]. Moreover, a report by the Asian Development Bank [8] shows that some democratic governments in Asia, e.g., India and Indonesia, invest more in disaster-risk reduction (2.1% GDP) than such authoritarian states as Vietnam or Myanmar (1.3%). For example, India's democratic governance supports awareness programs and disaster insurance while Vietnam's single-party model enables swift evacuation enforcement. These patterns indicate that while authoritarian regimes excel in rapid execution, democracies often build more resilient and transparent disaster-response systems.

Natural disasters are a relevant research topic. At present, disasters occur more frequently than ever. A recent interdisciplinary study showed that extreme weather-related disasters were more common during the last third of the 20th century and in the early 21st century than at any other time in the recent history [9]. The Emergency Event Data Base (EM DAT) of the World Health Organization calls a disaster event a *natural laboratory* [10] that makes it possible to investigate various factors, including political institutions, regime type, and level of political support prior to a disaster. Disaster events provide a unique opportunity for challenging and advancing the existing theories of government behavior and political legitimacy. Disaster cases may explain why some leaders are more or less able to translate uncertainty and threat into political capital, e.g., the Bengali leader Sheikh Mujibur Rahman in 1970, German Chancellor Gerhard Schröder in 2002, etc. [11].

In the face of increasing vulnerability and loss from natural disasters, more researchers try to investigate how natural disasters may create strains on a political system. Natural disasters may correlate with voting and electoral returns, macroeconomic stability, change in social policy,

decomposition and breakdown of regimes, political and social unrest, political repression, regional, ethnic and class inequality, violent civil conflict, intrastate conflict, and diplomatic relationships between countries [12; 13].

Studying disasters, therefore, contributes to the knowledge base from which governments and policy makers have to draw as they work to solve the problems posed by the increasing number of disaster events throughout the world. Such studies also shed new light on the concepts of governmental legitimacy, effectiveness, and responsiveness.

The damaging effect of disasters is not limited to the economic health of a society measured in terms of gross domestic product (GDP) or growth rate. It includes adverse effects on the environment, health, and human settlements [14]. Furthermore, disasters may halt the *momentum of development* for many countries, not only by inflicting various adverse effects, but also by truncating the administrative capacity of the government required to provide basic services and protect people from those damaging effects.

Overcoming the scarcity of critical resources becomes a tough challenge for the government when a significant portion of resources and energy are diverted to disaster management. The ability to respond quickly, sensibly, and responsibly to a wide range of major acute emergencies is now a "must have" for government leaders [15]. This preoccupation with disaster management may disturb the efficiency of the overall process of governance. In this respect, studying disasters contributes to the knowledge base new governments use to solve problems caused by the previous governments. Whether due to blind retrospection or availability of a rare opportunity to wither autocrats, a natural disaster is expected to have a direct and negative impact on the legitimacy of the political system. However, this disaster-legitimacy relationship is contingent on the type of political regime.

## Methods and materials

### Data Collection Method

Content analysis was the primary data collection method employed in this research. Content analysis boasts a wide range of applications in political science. It is often used to collect data from textual materials, such as newspapers, legal statutes, and open-ended survey questions. It reveals the characteristics of the communication, message, or the text itself. In this study, the method made it possible to summarize the content of journalistic reports of government responses to disaster events.

<sup>2</sup> Disaster resilience in Asia. A special supplement of Asia's journey to prosperity: Policy, market, and technology over 50 years. Philippines: Asian Development Bank, 2021. <http://dx.doi.org/10.22617/TCS210193-2>

### Data Sources

Selecting sources of news reports is a critical step in a content analysis. Some sources are more representative of the people and the issues concerned than others, some sources are more informative than others, and still some sources are more accurate than others. Inappropriately selected documents are more likely to generate a biased analysis. Thus, when the analyses are done on news reports, both the newspapers to be used as sources and the articles to be coded would have to be chosen on the basis of rigorous criteria. In the context of natural disaster-related news, proximity effects may indicate that local newspapers should be favored over national or international sources. Local papers are close to the disaster event and may function as the voice of the affected community. When people are not satisfied with the response from the national government, it is the local news reporters who get the first impression of the public grievances. However, gaining access to community level media is methodologically problematic. Most publicly available newspaper archives fail to include local newspapers. Moreover, many regional newspapers are in local, not national languages. Often, these newspapers rely on the reporters of a well-established national newspaper or broadcast media. In many cases, local news outlets are state-controlled or subject to state censorship. In the context of natural disasters, local newspapers tend to dramatize and over-report disaster events with large death-tolls. This tendency may reflect local citizens' urges to the national government and international relief agencies to react to the event more rapidly and adequately.

### Limitation / Delimitations

The study of the way the governments maintain the legitimacy in the wake of major disasters is to define the behavior pattern demonstrated by the government in a natural disaster and how it tackles the challenge. This study is limited to a number of case studies from several South-Asian countries that differ from each other in many ways. Therefore, the results cannot be extrapolated on the entire South Asian region.

### Research Significance

Major natural disasters may trigger legitimacy crises of governments. Unavoidable as they are, they take lives and cause major financial damage. Unable to prevent the events and their consequences, governments often face the challenge of maintaining their legitimacy in the post-disaster context. It depends on the quality of government response to the natural disaster and its aftermath. Some governments manage to translate crisis events to their political advantage while others

act in such ways that undermine their own political legitimacy. Very often, the location of the affected area within the country affects the quality of government response, which also depends on the political regime.

## Results

### Case Study: Bangladesh

In 2001, the military-backed authoritarian government of Bangladesh responded quite well to the tropical cyclone Aila in 2009, demonstrating preparedness and long-term planning. The case study is based on the media reports regarding the Aila disaster that covered the quality of government response, pre-disaster protective measures, long-term planning, and recovery issues, as well as the way the Bangladeshi people and the out-of-power political parties reacted to the government activities and how government response was casually linked to legitimacy. The general contextual factors included the geographic and physical vulnerability of Bangladesh with its socio-economic and political development challenges.

### Cyclone Aila

The cyclone Aila case allows for a cross-country comparison. Originating in the Bay of Bengal, Aila travelled through parts of Bangladesh and the Indian state of West Bengal before it weakened in Northeast India and Bhutan. It shows how the governments of these countries responded in terms of preparedness and immediate response, how the peoples and different political powers reacted to the actions taken by the official governments, and how the natural disaster affected their legitimacy.

### Challenges of Socio-Economic and Political Development

Bangladesh is geographically vulnerable to such disasters as floods, storms, cyclones, earthquakes, landslides, and draughts. Altogether, the country had an average of 6.5 disasters per year between 2005 and 2010, which made it the ninth highest in this period in the world (together with Pakistan and Mexico). These disasters killed, on average, about 1,083 and affected 5,093,112 people per year while causing an economic loss of 447.3 million in US dollars per year. According to the World Bank, an average of 4.6% Bangladeshis were affected by disasters between 1990 and 2009 [16]. Floods and tropical cyclones are the most common types of disasters in Bangladesh. In an average year, 40% of the country's total land area is flooded [17]. According to the Emergency Event Database of the Center for Research on the Epidemiology of Disaster (EM-DAT CRED), between 2005 and 2010, the country experienced 13 floods killing 1,244 and

affecting 16,923,855 people while causing 114 million US dollars of damage. The flood of 2007 alone affected 13,771,380 people, the highest in Bangladesh between 2005 and 2010, and killed 1,110, the second highest in the country during the same period [18].

## Economic status of Bangladesh

According to the UN, the population density in Bangladesh is 1,033 people live per square kilometer, which is almost three times as many as in India (373 people/km<sup>2</sup>) and eight times as many as in China, the world's most populated country (136 people/km<sup>2</sup>). According to the World Bank, its GDP was about 1,291 US dollars per capita in 2007, which grew to 1,419 in 2009 and 1,488 in 2010. To picture its economic status against other countries in 2010 [19], Bangladesh was in the low-income category (together with Kenya and Ghana) and the poorest in South Asia, except for Nepal with its GDP of 1,079 US dollars. The source of obvious comparisons are the regional giants, India and Pakistan, whose GDP in 2010 were 3,038 and 2,411 US dollars per capita, respectively. All South Asian countries, however, do poorly when compared to the world's economically well-to-do nations, such as Singapore (52,169 US dollars), the United States (42,079 US dollars), and Germany (33,414 US dollars). In addition to its low-income status, Bangladesh is also marked by extreme poverty and income inequality. In 2010, about 31.5% of its population lived below the national poverty line, which is similar to India (29.8%), but much worse than, e.g., Sri Lanka (8.9%) [20].

## Health and Education

Besides poverty and inequality, Bangladesh struggles in some other key development indices, including health and education. According to the Human Development Report made by the United Nations Development Program (UNDP) in 2020, the average life expectancy at birth was 68.63 years. This is one year below the global mean (69.67 years) but more than three years above the South Asian mean (65.28), India (65.13 years), and Pakistan (65.19 years). While Bangladesh does better than other South Asian countries in terms of average life expectancy at birth, it is far behind such economically advanced countries as Japan (82.9 years), Australia (81.6 years), or France (81.3 years) [17]. The level of education is another important area where the country lags behind. In 2010, the mean period of schooling for adults ( $\geq 15$  y.o.) was 4.8 years, which is roughly the same as in Pakistan

or Haiti (4.9 years). Compared to the countries with high scores in the Human Development Index, such as Germany (12.2 years), the United States (12.4 years), or Japan (11.6 years), Bangladesh is far behind in adult education. However, it is slightly above the South-Asian average (4.6 years). Due to inadequate performances in the above socio-economic areas, Bangladesh is mapped as one of the least developed countries in the world. For example, Bangladesh demonstrated a Human Development Index of 0.561 in 2010 (the value ranges between 0, the lowest, and 1, the highest), which put the country into the rank of 146 amongst 187 countries. In 2005, the Human Development Index value was 0.462. Although the country obviously improved its Human Development Index, it remained a low human development country [21].

## Political History

A number of trends in Bangladesh society provide a deeper context for understanding its politics. After its independence in 1971, the country was subject to a series of military coups, the last one being the 1982 coup that installed Lieutenant General Ershad as the dictator president of the country. Ershad ruled the country until he was overthrown by a mass uprising in 1990 and was succeeded by an elected government of Begum Khaleda Zia, the chief of the Bangladesh Nationalist Party. Since then, Bangladesh has been plagued by confrontational interaction between two major political parties – the Awame League and the Bangladesh Nationalist Party. These two political parties, either independently or through pre-electoral coalition building, have rotated control of government since 1991. Competition between the two has been fierce at electoral winning. As a John Gastright, Deputy Secretary for South and Central Asian Affairs, remarked in 2007, "the opposition's sole focus was on bringing down the government at any cost"<sup>3</sup>. An example of the confrontational politics can be drawn from during that period encounter between the prime minister Sheikh Hasina of the Awame League and Khaleda Zia, the Bangladesh Nationalist Party chief. While conducting an anti-government rally, Khaleda Zia accused the Awame League-led "grand alliance" government of being "desperate to remain in power at any cost (*authors' note* – even at the cost of promulgating emergency)"<sup>4</sup> [22]. From the rally, Khaleda Zia announced various anti-government programs including a countrywide road blockade to press

<sup>3</sup> Pakistan: Critical Foreign Policy Goals. *U.S. Department of State Archive*. URL: <https://2001-2009.state.gov/p/sca/rls/2007/103442.htm> (accessed 5 May 2025).

<sup>4</sup> State of Emergency. *The Daily Star*. 14 Dec 2012. URL: <https://archive.thedailystar.net/magazine/2012/12/02/current.htm> (accessed 5 May 2025).



home its demand on the reinstatement of the caretaker government. The prime minister severely criticized the Bangladesh Nationalist Party chief for the comment and raised the question of whether the Bangladesh Nationalist Party wanted itself to create a state of emergency by announcing violent programs. Sheikh Hasina urged the Bangladesh Nationalist Party, who had been boycotting most sessions of the parliament, to join the parliament to discuss their demand and warned them not to "push the country towards destruction"<sup>5</sup>.

A comparative case study of Cyclone Aila in 2009 offers a valuable opportunity to assess how different regime types, i.e., democracy (India) and anocracy / autocracy (Bangladesh at the time), responded to the same transboundary disaster. While both countries were impacted, their governance structures influenced how each managed preparedness, response, and recovery.

India, with a more entrenched democratic structure, relied heavily on decentralized governance, civil society engagement, and early warning dissemination, particularly through the West Bengal Disaster Management Authority [23]. On the other hand, Bangladesh, though officially democratic, was experiencing a period of reduced political pluralism and stronger central control following a 2007 military-backed caretaker government, showing more autocratic traits. The central government coordinated a rapid response using top-down enforcement mechanisms, including forced evacuations and military-led relief [24].

This comparison suggests that democracies may foster better public trust, inclusiveness, and long-term resilience while more autocratic systems may enable quicker short-term mobilization though often at the cost of transparency and participation<sup>6</sup>. The effectiveness of disaster response thus appears context-dependent, with regime type influencing the method and legitimacy of action rather than guaranteeing better outcomes in isolation.

To credibly assess how regime type affects disaster response, it is essential to apply a recognized metric for measuring democratic governance. In this context, the Polity IV dataset [23] provides a popular and standardized measure of a country's regime characteristics on a spectrum from autocracy to full democracy. According to Polity IV scores in 2009, India was classified as a full democracy (Polity score +9) while Bangladesh, emerging from a military-backed caretaker government (2007–2008), was categorized as an anocracy with a Polity score around +4, reflecting limited democratic consolidation.

This regime difference influenced their responses to Cyclone Aila in 2009. India's democratic setup enabled state-level disaster authorities, such as the West Bengal Disaster Management Department, to coordinate locally tailored responses with the help of non-government organizations and panchayats, i.e., a system of rural local self-government [23]. Conversely, Bangladesh leveraged a more centralized, hierarchical structure to deploy military and paramilitary forces for evacuation and relief, reflecting an autocratic tendency to prioritize command-control mechanisms over participatory approaches [24].

This comparison suggests that while democratic regimes may enhance transparency and inclusiveness, hybrid or autocratic systems may achieve faster mobilization through coercive authority. However, without sustained institutional capacity and accountability, such responses may lack long-term effectiveness or public legitimacy.

### Tropical Cyclone Aila, 2009

Tropical cyclone Aila hit parts of both Bangladesh and India on May 25, 2009. With wind speeds of about 65–75 mph, the cyclone crossed Bangladesh beginning around 2.00 a.m. and lasting over a period of 5 hours. Aila was a category one cyclone, which on its path to the state of West Bengal devastated 11 districts in the southwestern coastal region of Bangladesh. It affected about four million people and inflicted an estimated economic loss of 270 million US dollars [25]. This created a considerable burden to Bangladesh as the country was still recovering from the effects of cyclone Sidr that occurred in November 2007, less than 18 months before Aila made its landfall.

### News reports on Aila

While the confusion about the arrival of the cyclone delayed the early warning process, it also left the responding actors, particularly the government, and the victims largely unprepared. A journalist alleged that "local administration, concerned lawmakers, and non-governmental organizations were all ill-prepared and did not show enough agility" [26].

The lack of readiness of the responders may explain why a large number of people did not evacuate to safe places, especially to public cyclone shelters, schools, and colleges. According to a Red Cross and Red Crescent Societies report published two days after the cyclone struck, "3,300,000 people in eight districts were affected

<sup>5</sup> No vote for those driving country to destruction: Sheikh Hasina. *Daily Sun*. 21 Mar 2017. URL: <https://www.daily-sun.com/post/213828/budget2025-2026> (accessed 5 May 2025).

<sup>6</sup> Freedom in the world 2009: The annual survey of political rights and civil liberties. Lanham: Rowman & Littlefield Publishers, 2009, 918.

by the cyclone. Around 100,000 were taken to safe shelters under an evacuation campaign by volunteers and law enforcement agencies"<sup>7</sup>.

In a press briefing, the Food Minister Razzaq, eschewing the issues about warning and readiness of the government responders, explained, there are only five cyclone shelters in a union where 37,000 people live. As a result, even though there are warnings on cyclone, all people cannot take shelter in the cyclone centers [26].

Just as the government's ineffective early warning process was well documented and criticized in the news reports, the pre-disaster protection initiatives of the government were also high frequency issues discussed in press reports. Most of them focused on a 284-kilometer-long flood-protection embankment which had not been repaired after it was severely hit 18 months earlier (November 2007) by Cyclone Sidr. It is noted that not much repair work was done on the embankments and indeed hardly any new ones were built as a precaution against subsequent natural disasters<sup>8</sup>. Already crying out for thorough repairing, the embankment was once again hit by Aila and was breached in at least in five spots.

Emphasizing the importance of repairing the embankment, Aktaruzzaman Mukul, a shareholder of shrimp farms affected by the cyclone, complained to a Daily Star reporter: "Natural disasters wreak havoc in the district almost every year, and the damaged embankment needs to be repaired immediately to protect it from widespread destruction"<sup>9</sup> [27]. Protecting the embankment is a crucial issue. Besides protecting the area from floods, it serves two important purposes: it stops saline water carried by the oceanic rivers from contaminating the clean water sources that are used for drinking, agriculture, and homestead usage. Second, since the embankment is the only place not likely to be submerged by the cyclone-drawn water, it can serve as the shelter for hundreds of people. As the embankment was not properly maintained and repaired, the local people feared that, should the embankment give away, they would have no place to keep dry.

## Assistance

The second major dimension of immediate response codes various initiatives that a government takes to assist the affected people. The most important of these are rescue and relief operations. These operations are distributional in nature; thus, their quality can be assessed by finding whether the resources spent on rescue and relief operations were equitable and if everyone affected had an equal and adequate chance of getting these resources. The government repeatedly asserted that relief was being distributed throughout the affected areas. Two days after the storm, the Food and Disaster Management Minister said that "the government volunteers are distributing food and other essentials throughout the coastal districts. Helicopters are being used to send relief materials to faraway places"<sup>10</sup>. The Minister also said that the government had been distributing drinking water along with food and medicine. The night before, the Prime Minister ordered the related ministries to step up measures to help the affected people and take immediate steps to repair the embankments and other infrastructure left battered by the cyclone<sup>11</sup>.

Despite these assertions, the people from the affected area reported to BBC Bangla and the Daily Star that they either received no or inadequate relief assistance from the government. A person from a village of Patuakhali district was quoted as saying, almost all people in union have been affected by the cyclone, but we have yet to see any relief materials<sup>12</sup>.

Thousands of people in Shatkhirra district were reported to have remained marooned in various places in the district, over 100,000 of them did not have any food and drinking water [28]. A chairman of a union council said to the Daily Star that relief distribution operations were not being carried out properly<sup>13</sup>. After more than a week of the storm, hundreds were waiting homeless on the embankment for the government to salvage them. More than a month later, people of a sub district in Khulna district made a peaceful demonstration demanding adequate relief for Aila victims and a better embankment. They sought the Prime Minister's urgent

<sup>7</sup> Annual report 2009. International Federation Red Cross and Red Crescent Societies, 2009. URL: <https://www.ifrc.org/sites/default/files/Annual-report-2009.pdf> (accessed 5 May 2025).

<sup>8</sup> Benson C., Clay E. Bangladesh: Disasters and public finance. Washington: The World Bank, 2002. URL: <https://www.gfdrr.org/sites/default/files/publication/Bangladesh-Disasters%20and%20Public%20Finance.pdf> (accessed 5 May 2025).

<sup>9</sup> Aila ravages shrimp farms in Satkhira. *The Daily Star*. 1 Jun 2009. URL: <https://www.thedailystar.net/news-detail-90749> (accessed 5 May 2025).

<sup>10</sup> Food, drinking water crisis in the coast. *The Daily Star*. 28 May 2009. URL: <https://www.thedailystar.net/news-detail-90163> (accessed 5 May 2025).

<sup>11</sup> Benson C., Clay E. Bangladesh: Disasters...

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

intervention in the rehabilitation process and appealed to the government for allocation of funds needed to re-construct a 40-kilometer-long embankment that might give away anytime.

### Case Study: India

As part of its disaster preparedness, a government is expected to run a system of early warning, facilitate an evacuation process, and take measures to protect the people from the potential disaster. This case study focuses on India's geographic and physical vulnerability, challenges of socio-economic and political development, and institutional capacity for disaster response.

In India, cyclone Aila (2009) was responded to by the elected government of Chief Minister Buddhadeb Bhattacharjee of the Left-Front alliance of left ideological parties, which was in power between 1977 and 2011. Focusing on these areas, the current chapter evaluates the performance of both West Bengal and central governments for the impending Aila disaster.

The overall performance of the early warning system was less than adequate. The Indian Meteorological Department, a federal department with a regional center near Calcutta, did detect a storm as it formed in the Bay of Bengal on May 22, 2009, about three days before it transformed into cyclone Aila and hit West Bengal [28]. It immediately started informing the people about the upcoming heavy rain and strong wind. Nonetheless, the Meteorological Department could not issue a cyclone warning until May 24, less than twenty-four hours before the cyclone hit West Bengal. Part of the reason of this delayed and imprecise warning was that the storm itself did not intensify until a few hours before landfall. The imprecision of the warning system was partly due to the failure of a weather monitoring station at Contai in East Mednapore, which was supposed to track the storm as it progressed northwards. Its power supply and sensor wires had been broken before Aila was formed, but the authorities failed to detect that in time.

As a result, the evacuation started too late, delayed by two factors. First, the state civil administration at the district authorities, unsure about the course of the cyclone, preferred to wait until the cyclone became a real threat. The Indian defense ministry officials blamed the civil administration for such inaction because the Indian Coast Guard had asked them to evacuate residents of remote islands in the Sundarbans at least two days before the cyclone struck. The defense ministry also criticized the state government for not engaging the Indian Navy and the Coast Guards enough in the disaster response process. Second, people were not

ready – partly because of a lack of timely warning and partly because of their casual approach to the weather, although it had been raining for hours with strong winds. When the wind suddenly picked up and the rain became severe around noon on May 25, people in Calcutta were surprised as they did not know what to expect.

### Immediate Response: West Bengal

Leadership is an important aspect of post-disaster government response. The current section focuses on the leadership competition over the disaster response process following Aila, in terms of visits to affected areas, public addresses, official directives, and roles in assessing the damage and the needs of the affected people. Following Aila, the Left-Front-led state government of Bhattacharjee and the Banerjee-led All India Trinamool Congress competed with one another in responding to the disaster. While, according to the National Disaster Management Act (2020), the state government had the primary responsibility to respond to the disaster, Banerjee repeatedly blamed the government for inaction and wanted the central government to take the lead bypassing the state government. Finance Minister Pranab Mukherjee played a critical role in this competition between the state government and the other party. Bhattacharjee visited many of the affected islands in the Sundarbans on May 26, 2009, the very next day of the disaster. He also dispatched five ministers of his government to various affected areas to monitor the rescue and relief operations [29]. During this visit, he met with the local civil administration, police officials, and the Sundarbans development authority to discuss rescue and rehabilitation plans. He addressed hundreds of villagers at a temporary camp, where he assured them of relief within two days. He informed the people that his government opened community kitchens across Sundarbans region, and he called the national army to help in rescue and relief operations.

Bhattacharjee was welcomed in villages where the majority of the people were Left-Front supporters. More confident, Bhattacharjee listened to the villagers who complained about various irregularities in the relief and rehabilitation operations, including shortages of food and drinking water, as well as medicine black-marketing. He reached out to the people in an effort to win their support, and in his address to the villages, he assured them that he would not leave without meeting the demands of food and medicine that were placed before him. He also assured them that he would persuade the central government to allocate funds to rebuild the embankments, and his government would rebuild the damaged houses of the villagers. By the first day of the cyclone, Bhattacharjee called the central



government to send the military forces to carry out rescue operations in various parts of the Sundarbans. He reported to the media that he would seek army's help specifically to reach assistance (rescue and relief) to Pathapratima, Gosaba, and Basanti Islands as those areas would be difficult for the civil administration to reach quickly. The Indian Army, Border Security Force, and Indian Air Force started their rescue and relief operations in coordination with the local police forces.

## Research perspectives

Proposed solution to enhance the scientific rigor and reliability of conclusions in disaster management research is to include appendices with primary content analysis data. These appendices could contain field notes, interview excerpts, coding schemes, GIS maps, or data tables from surveys and early warning assessments. This approach ensures that the analytical process is transparent and verifiable by other scholars or practitioners.

In disaster management studies, where interdisciplinary and context-specific data are critical, transparency is essential for ensuring credibility. According to [30], documentation of primary data and analytical methods in appendices reinforces the robustness of emergency preparedness and response evaluations. Additionally<sup>14</sup>, argue that access to raw disaster impact data and vulnerability indicators enables more precise policy evaluation and replicability across regions. For instance, in post-tsunami research in Indonesia, the inclusion of coded transcripts and field maps in appendices allowed for in-depth cross-verification of recovery trends and local adaptation strategies [31].

## Conclusion

This research focused on major natural disasters and the way they contribute to the crisis of legitimacy of governments. Cyclones, floods, droughts, earthquakes, tsunamis, extreme temperatures, and volcanic eruptions are occurring more frequently than ever. These disasters

kill thousands of people and affect even more, destroying millions of dollars in wealth and creating shocks to economic growth, especially in developing countries. While governments are not responsible for these events and may not have the know-how to prevent damage and casualties, they often face the challenge of maintaining legitimacy in the post-disaster context.

The theoretical framework developed in the results drew on a small but emerging literature on disaster policy and a diverse literature on crisis management, regime behavior, civil conflict, and political support from governments and regimes.

Within the theoretical framework, the study identified three major factors that may explain the crisis of legitimacy of a government in a post-disaster context: 1) the number and type of disasters that have occurred, 2) *the quality of the government's response*, 3) the type of political regime.

The research yielded three major conclusions:

1. The lower the quality of the government response to natural disasters, the greater the risk of a legitimacy crisis.
2. The overall quality of government response tends to be highest in democracies, followed by autocracies, and lowest in anocracies.
3. A surge in the number of disasters increases the risk of government legitimacy crisis by increasing the risks of national anti-government political activities.

**Conflict of interests:** The authors declared no potential conflict of interests regarding the research, authorship, and / or publication of this article.

**Конфликт интересов:** Авторы заявили об отсутствии потенциальных конфликтов интересов в отношении исследования, авторства и / или публикации данной статьи.

**Contribution:** All the authors contributed equally to the study and bear equal responsibility for the information published in this article.

**Критерии авторства:** Авторы в равной степени участвовали в подготовке и написании статьи.

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