



Research The Politics Of Natural Disasters. The Appropriate Course Of Action Taken By The Government In The Wake Of A Major Disaster

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ABSTRACT

The welfare impact of a disaster does not depend only on the physical characteristics of the event or its direct impacts in terms of lost lives and assets. Depending on the ability of the economy to cope, recover, and reconstruct, the reconstruction will be more or less difficult, and the welfare effects smaller or larger. This ability, which can be referred to as the macroeconomic resilience of the economy to natural disasters, is an important parameter to estimate the overall vulnerability of a population. Here, resilience is decomposed into two components: instantaneous resilience, which is the ability to limit the magnitude of the immediate loss of income for a given amount of capital losses, and dynamic resilience, which is the ability to reconstruct and recover quickly. The paper proposes a rule of thumb to estimate macroeconomic resilience, based on the interest rate (a higher interest rate decreases resilience and increases welfare losses), the reconstruction duration (a longer reconstruction duration increases welfare losses), and a “ripple-effect” factor that increases or decreases immediate losses (negative if enough idle resources are available to cope; positive if cross-sector and supply-chain issues impair the production of non-affected capital). An optimal risk management strategy is very likely to include measures to reduce direct impacts (disaster risk reduction actions) and measures to reduce indirect impacts.

Introduction

1 Disasters as social and political phenomena

Natural disasters do not only threaten lives or damage property; they can severely affect societies and their socio-political structures. A rather extreme and very early example of

this may be the demise of the Maya civilization. The Maya civilization was severely affected by long periods of droughts in the context of changing climate. These droughts led to a shortage of resources and contributed to the social stresses that caused the collapse of the Maya civilization. Moreover, artificial water reservoirs played a key role in the social system. The control over them was so important for political power that “drought may have undermined the institution of Maya rulership when existing ceremonies and technologies failed to provide sufficient water”

The government offered immediate monetary help and cleverly staged a visit of the chancellor, wearing rubber boots, to flooded villages, which media took up as a symbol of the chancellor’s credibility as a crisis manager. After the floods and at least partly due to what was perceived as successful disaster management, the government gained support among the public and won the federal elections several months later. Even ten years after the floods, the chancellor in rubber boots remains a vivid memory in the media.

illustrate a fundamental assumption for this study: Disasters do not only have an effect on the environment; they can also affect, strain, and even threaten the survival of social and political systems. However, disasters do not always have a negative social or political impact. Depending on the context, consequences for political leaders may also be positive. The purpose of the present project is to systematically investigate the political and social impact of disasters and to explore media coverage as a mechanism that explains political effects of disasters.

After having specified the aim and research questions, the introduction will discuss concepts related to natural disasters and connect these thoughts with views on the relevance of studying disasters in general. This is followed by a comment on interdisciplinarity in disaster research, pointing out some important characteristics. A section on the theoretical framework will specify the concepts of social capital, political trust and satisfaction with the government, which were the focus of the project, and extend the discussion to prior research on the comprehensive relationships between these concepts and disasters. It will also present a presumed mechanism for change in political attitudes: media coverage of disasters and of the government’s efforts to manage the event.

1.1 Aim

Prior research has identified changes in social capital and political attitudes. But results differ and show inconsistencies concerning whether there are increasing or decreasing levels of social capital and political attitudes following these events. Hence, while previous research suggests that natural disasters and their management affect individuals socially and politically, there is uncertainty as to what this effect looks like and how widespread effects are, i.e., whether we can

apply previous results to disasters in general. By investigating these issues systematically, the present project contributes to existing studies by adding more general results.

1.2 Natural disasters – terms and concepts

these terms appear throughout the papers included here and should be explained thoroughly to distinguish them from each other.¹ What is a natural hazard event and what is a natural disaster? Natural hazards have affected this planet long before human life existed, and they have continued to do so throughout history. Hence, natural hazard describes the natural phenomenon that occurs and does not include the event's subsequent impact on societies.

1.3 On the relevance of studying disasters in general

disaster statistics show that generally fewer people die because of natural disasters today than did, for example, a century ago, we can also identify two other trends that emerged: The number of natural hazards that affect human societies every year has increased and the annual economic damage that natural disasters cause has risen significantly .

Related work

Zahidul et al.(2013) This dissertation is about major natural disasters, and how they contribute to legitimacy crises of governments. Three major factors explain the emergence of a legitimacy crisis in a post-disaster context: the frequency of disaster occurrence, the quality of the government response to disasters, and the type of regime within which the government operates. Employing a large-N statistical analysis of data on major natural disasters and anti-government domestic political activities for the years between 1990 and 2010, I show that higher counts of disasters, as a rule, increase the risks of anti-government demonstrations, revolutions, riots, guerrilla warfare, and intrastate conflict. The disaster-political opposition relationship is conditional upon the characteristics of political regimes. No regime is entirely free from the political dangers of disasters. Consolidated autocracies and well established democracies are less likely than mixed regimes to observe political crises in the context of a higher frequency of natural disasters

[Kalpana Srivastava et al.\(2010\)](#) Disaster is a sudden, calamitous event, bringing great damage, loss, destruction and devastation to life and property. The damage caused by disasters is immeasurable and influences the mental, socioeconomic, political, and cultural state of the affected area. Disasters are events that inflict great damage, destruction, and human suffering. Their origin can be natural, such as earthquakes, floods, and hurricanes, or of human origin: accidents and terrorist acts.

Bănică et al.(2020) Natural disasters are usually regarded as damage factors causing high private and social costs. Notwithstanding the incontestable validity of this premise, natural disasters do not necessarily lead to a structural deprivation of the area affected. Recent studies have clearly shown that in the long run one may even observe positive socio-economic effects ('blessings in disguise').

This paper investigates this challenging proposition by developing a risk-disaster-opportunity framework for a territorial system, and by analysing the socio-economic impacts of natural shocks from a resilience perspective. This is inter alia done by designing a typology of natural disasters, and by presenting a systematic classification of long-range impacts.

Sheek-Hussein et al.(2020) The COVID-19 pandemic has exposed a suboptimal response to this threatening global disaster, including the response to the psychological impact. Both the economic hardship and the continuous media coverage of alarming news have exacerbated this effect which also includes increased domestic violence.

Yifan Huang et al.(2020) How do natural disasters impact political trust in contemporary China and what is the causal mechanism? Existing literature indicates that the severity of disaster, government relief effort and information dissemination are three key factors influencing people's political trust in the context of acute natural disasters. This study uses the Wenchuan earthquake as a natural experiment and focuses specifically on the survey data collected right before and after the earthquake. It finds that primarily due to the 'rally round the flag' effect and extensive media coverage, public trust in government officials at all levels rose significantly after the earthquake. During the crisis, state-run media played a vital intermediate role. The more a citizen was exposed to the official media coverage, the more likely his/her political trust was to increase. However, the division of work in disaster relief among different levels of government resulted in differences in the level of increase in trust. As local-level governments are often directly responsible for the rescue and post-earthquake relief, they gained the highest increase in political trust, while state-level officials gained the least. The short-run upsurge in political trust receded as time went by. Government mobilization and media coverage are core contributing factors to the increase in political trust during the post-disaster period. Nevertheless, the key to consolidating political legitimacy lies in long-term efforts to build good and effective governance.

Zahidul Arefin Choudhury, Politics of natural disaster: how governments maintain legitimacy in the wake of major disasters, Autumn 2013;

DOI: 10.17077/etd.wau3elgf

[Kalpana Srivastava](#) **Disaster: Challenges and perspectives** [Ind Psychiatry J.](#) 2010 Jan-Jun; 19(1): 1-4.

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Bănică, A., Kourtit, K. & Nijkamp, P. Natural disasters as a development opportunity: a spatial economic resilience interpretation. *Rev Reg Res* 40, 223-249 (2020). <https://doi.org/10.1007/s10037-020-00141-8>

Sheek-Hussein, M., Abu-Zidan, F.M. & Stip, E. Disaster management of the psychological impact of the COVID-19 pandemic. *Int J Emerg Med* 14, 19 (2021). <https://doi.org/10.1186/s12245-021-00342-z>

- [Yifan Huang](#), **Natural disaster and political trust: A natural experiment study of the impact of the Wenchuan earthquake** january 2020 DOI: [10.1177/2057150X19891880](https://doi.org/10.1177/2057150X19891880)

Methodology

The major aim of this dissertation project is to address two questions: do natural disasters contribute to legitimacy crisis? If yes, how? Based on the statistical analyses, I conclude that natural disasters, as a rule, increase the overall risk of a political crisis. The concern of the second part of the question above is to unpack how causation exists in the relationship between disasters and political crisis. The aim of this and the two subsequent case study chapters is exactly that: to provide a fine-grained analysis of contextual conditions and the causal mechanisms that allow disasters to affect legitimacy

Data Collection Method

The primary data collection methodology to be employed is content analysis. Content analysis is used to collect data from textual materials, such as newspapers, legal statutes, and open-ended survey questions. It allows researchers to analyze the characteristics of the communication, message, or the text itself. content analysis is a “research method that uses a set of procedures to make valid inferences from text. These inferences are about the sender of the message, the message itself, or the audience of the message” The basic goal of this method is to “take a verbal, non-quantitative document and transform it into quantitative data” .In other words, while doing content analysis scholars reduce textual material by classifying it into “much fewer content categories” , which can then be analyzed using standard statistical methods.

content analysis to measure ideological values of US supreme-court judges. They used newspaper editors' assessments of the justices' ideological values, ranging from - 1 (unanimously conservative) to (moderate) to +1 (unanimously liberal). The authors gathered their data from four newspapers, "two with liberal stances and two with conservative ones also used content analysis to build measures of political ideology. They differentiated between 'reference texts' – political texts that have a known ideological position – and 'virgin texts' – that have ideological positions unknown to the researchers. They then compared the words of the virgin text with "the words [they] ... observed in reference texts with "known" policy positions". Using a Bayesian estimation strategy, they provide estimates of ideological positions of the virgin text relative to the reference texts. They tested this content analytic strategy in a comparative set-up on public policies of various countries written in their domestic languages.

comparative political institutions, measure the amount of discretion that legislatures delegate to the executive branch by measuring the length (in terms of word count) of the pertinent legislations. Before measuring the length of the statutes, the authors separated the policy language from the procedural language. "For the policy language, [they] coded whether it was general or specific and for the procedural language [they] coded the type of procedure" .Justifying their measurement strategy, "with two statutes that address the same issue, the longer one typically places greater limits on the actions of other actors, because it is filled with policy-specific details that constrain what these other actors can do ... [thus] length of legislation provides a good proxy for the legislative majority's efforts to control policy implementation".

Data Sources

Selecting sources of news reports is a critical step in a content analysis process. 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 biased analysis. Thus, when the analyses is 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 such analyses, whether to use local, national, or international reports, and whether to use print (e.g. daily newspaper or weekly magazines) or electronic (television, radio, or internet) media become matters of important methodological choice.

the matters of spatial selection of news reports, scholars of political communication have found that news organizations "cover a higher proportion of the events that occur close" to them, a phenomena known as "proximity effects". In the context of natural disaster related news, proximity effects may indicate that local newspapers should be

avored over national as well a international sources.¹⁰ 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.

Coding Scheme

online archives where past news reports are organized on a daily basis. I use these archives to retrieve disaster related reports for coding. As operationalized in the previous section, government response quality is observed from the early warning phase through the long-term phase. By design, early warning comes as the disaster event approaches a community

Table 4.2: Selected Sources of News in Bangladesh, India

Country	Radio(per-capital)	Television(per-capital)	Daily News - paper Circulation(per-capital)	Largest National Daily News-paper (estimated circulation)	International Radio Broadcasts
Bangladesh	.05(1999)	.008(2003)	.01(1999)	Daily Star: 40,000(2011)	BBC: Bengali 1941-present
India	.12(1999)	.09(2003)	.07(1999)	Time of India: 13,447,000 readership	BBC: Hindi 1940-present

Note: Year of the datapoint in parenthesis.

- Banks, Arthur S. 2011. "Cross-National Time-Series Data Archive". Databanks International. Jerusalem, Israel
- Minister of Information, Bangladesh presented this information to the Parliament on Feb. 23, 2011. See The Daily Prothom Alo (in Bengali), Feb. 24, 2011.

- See Indian Readership Survey 2011 at [http://mruc.net/irs2011q4 %20toplines.pdf](http://mruc.net/irs2011q4%20toplines.pdf), Accessed March 5, 2012. Note that readership is different from circulation, which is usually lower than readership.

news reports, thus, covers a time range that starts three days before and ends two months after the disaster start date. I selected this time range based on my readings of a sub-sample of news reports on disasters that occurred in the countries selected for my case studies. In these reports, I observed that by the second month of a disaster event governments have usually begun their long-term recovery activities and media coverage drops off precipitously after two months. While sometimes disaster reporting continues after two months, in many cases years, disaster reporting becomes occasional as other issues gain importance roughly after the second month. I found the two-months-and-three-days time range reasonable, it allows me to code all three phases of disaster response, as identified above.

these reports electronically into an archive where each report is given a unique identification number. Each of these reports becomes a text source that I code against the indicator questions of government response quality and political crisis, as described above. The indicator questions with detailed description of how to code them is available in codebook at the end of this chapter, in Appendix A. To accomplish this task, I use a content analysis technique called 'keyword-in-context' that deconstructs an indicator question into key words, uses these key words to search the source text to identify relevant pieces of text and then interprets the meaning of the words in the context where they are used.

an early warning related question is: did the government issue any early warning? Notice that the question has a main key word, "warning", and associated key words "government" and "issue". The main key word and the associated key words are re-organized in the following fashion to represent the above indicator question: an actor (the government) does (issues) an act (early warning). For each of these key and associated words, I identify a word-set that consists of the synonyms of the word concerned.

the qualitative case studies, first I select all instances where the main key word ("warning" or its synonyms) is used in the text; second, from these selected texts, I further select instances where the associated key words (the word-set for government and the one for "issue") are mentioned around the main key word "warning"; third, I code according to the following rules: Yes if there is explicit reference to an early warning issued by a formal authority of the government; if there is explicit reference to an absence of early warning issued by a formal authority of the government; and Do not know, if there is explicit reference to early warning, but there is no way to say whether an early warning was issued for the disaster concerned or not.

The case studies investigate the mechanisms connecting natural disasters, government response quality, regime characteristics, and legitimacy crises.

in this chapter, three pivotal concepts – government response quality, legitimacy crisis, and regime characteristics – especially for the purpose of the case studies. The qualitative data for these studies come from computer assisted content analyses of systematically selected news reports on the selected disaster events. The news reports come from national daily newspapers in each of the selected countries and English translated transcripts of BBC radio news broadcasted in local languages of these countries.

Conclusion

Disasters have substantial social and psychological impacts, which reflect not only the impact characteristics but the pre-existing social and economic vulnerabilities, which intensify the loss and disruption. Effective disaster management, therefore, needs to ensure that the diverse interests and priorities of communal life are integrated into planning and response, especially those of vulnerable persons and groups. At the same time, it is important to take into consideration the psychological effects of disasters, particularly in relation to response mechanisms and processes. The level of psychological distress generated by a disaster may be either diminished or intensified by planning and management decisions, which in turn can enhance or impede recovery and reconstruction. The development of mental health care faces special challenges in developing countries. There is a need for mental health professionals to shift from a clinical to a public health focus; the development of training materials, case records, information systems, and the availability of adequate numbers of mental health professionals to implement the plan. There is a need for training all those involved in disaster relief work. The importance of trained Community Level Workers (CLWs) to implement an organized effort aimed at providing psychosocial relief has been well exemplified. There is a need in the Indian scenario to have community mental health teams trained for such events.

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