Book Review

Thomas, V. (2023). *Risk and resilience in the era of climate change*. Palgrave Macmillan. 220 pages.

Risk and Resilience in the Era of Climate Change

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Greenhouse gases (GHG) continued to accumulate, exacerbating the global climate crisis and leading to a range of adverse impacts. These include, among others, the heightened frequency and intensity of climate-related disasters such as storms, typhoons, and droughts that are being experienced across various parts of the world (Eckardt et al., 2023). Despite these alarming developments, many countries have yet to fully embrace a developmental approach that effectively mainstreams climate change mitigation strategies (Yang et al., 2023). It is within this context that Vinod Thomas authored the book "Risk and Resilience in the Era of Climate Change," which provides valuable insights into the proper conceptualization of climate change risks and resilience. Additionally, it delves into why climate change has not yet become a top priority for policymakers, as well as highlights the limitations of existing major economic approaches in addressing climate change-related issues and challenges. The book is composed of nine chapters, primarily divided into two parts, the first part (Chapters 2-5) examines how risk and resilience are evolving in the world today while the second part (Chapters 6-9) explores their application within the context of climate change.

Among the key points emphasized in the book is the undeniable reality of climate change as a developmental challenge as well as the importance of rejecting the notion that climate change is merely a natural occurrence or an "act of God," emphasizing its anthropogenic causes. The book presents compelling scientific data and studies establishing causal links between human activities, GHG emissions, climate change and related hazards. However, despite the overwhelming evidence, a considerable portion of the general public and even political leaders, according to Thomas, continue to deny the human-induced nature of climate change. While it is true that climate change, has natural components, numerous studies have already revealed that human activities accelerated its pace. For instance, the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), as discussed in the book, attributes more than half of the observed global temperature increase between 1951 and 2010 to carbon emissions resulting from human activities. This has also led to an exponential rise in hydro-meteorological hazards and climatic events, in contrast to geophysical hazards which have not exhibited a similar increase as explained by Thomas.

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The anthropogenic nature of climate change is not only reflected in the acceleration of climate change per se but also in the occurrence of disasters as hazards alone do not guarantee disasters. Chapter 3 of the book elaborates on how disaster risk is primarily a function of exposure, vulnerability, and intensity. While controlling the intensity of hazards is beyond the government's or the general public's control, proactive efforts can be taken to reduce exposure and vulnerability. For example, communities in high-risk areas can be relocated, and land use policies can discourage dense settlements in such places. In terms of vulnerability, public and private entities, as well as individuals, can invest in strategies and measures to mitigate the effects of hazards and improve their adaptability to its potentially recurring and long-term impacts. Consequently, these actions can help avert disasters and hence, disasters are not solely "natural" events.

In fact, it has already become a widely accepted practice among environmental scholars to refrain from using the term "natural disaster" (McMahon, 2018). This is because its use implies that disasters are inevitable and beyond human influence which, as discussed, is fundamentally flawed. Over a decade ago, Squires and Hartman (2006), along with other scholars, already addressed this issue in their book titled "There is No Such Thing as a Natural Disaster" through their analyses of the impacts of Hurricane Katrina in New Orleans. It is therefore disheartening to observe Thomas' extensive use of "natural disaster" throughout his book. Moreover, while Thomas did underscore the social dimensions of risk through his discussions and examples across various sections of his book, he missed an opportunity to use a more explicit framing and structure to further emphasize the message that disasters are not inherently natural events. Although it may seem like a minor detail, avoiding the use of "natural disaster" is an integral consideration in achieving this objective. This is also more consistent with his advocacy, as discussed in his book, to reshape the portrayal and communication of climate change, particularly by the media, and to influence public perception in favor of climate action. Thomas also stressed the importance of establishing accountabilities in the discourse on climate change as a means to spur climate action and avoiding the use of "natural disaster" makes it easier to attribute blame to human activities for causing disasters.

Another focal point of the book is the provision of a clear and appropriate framework for understanding resilience in the context of climate change. "Resilience" has often been used somewhat loosely by scholars and, even more so, by many public officials. As such, it is indeed important to provide guidance on its application as a misconstrued interpretation may result in undesirable consequences. As noted by Jabareen (2013), the multidisciplinary and complex nature of systems is often overlooked in the application of resilience and that a myopic view may lead to inaccurate conclusions and misrepresentations. Thomas makes two particularly salient points about resilience. Firstly, he said that resilience-building extends beyond just preparing for the impacts of climate change as it should also encompass preventing the current climate situation from deteriorating further. Mitigation is usually a disregarded aspect in the academic and practical discussions on resilience as scholars and practitioners tend to focus only on adaptation and/or disaster preparedness. Secondly, Thomas also argues for a broader interpretation of resilience with respect to qualifying preparedness. He contends that resilience involves not only securing robustness but more importantly, flexibility of systems in

terms of capabilities to adapt and to manage future challenges. This perspective also aligns with the views of other resilience scholars such as Chelleri et al. (2015) who push for climate action measures designed to sufficiently accommodate changes and transformations in the face of future uncertainties.

Thomas outlined three key phases of resilience which broadly encapsulate his ideal approach: *Prevention*, *Response*, and *Learning*. These phases respectively correspond to actions taken before, during, and after a disaster. Thomas offers comprehensive explanations, with practical examples, to describe each phase. While there are already several resilience frameworks developed by reputable organizations and scholars, Thomas' approach offers a holistic and easily digestible perspective on resilience. However, it would have also been much more insightful to include a discussion of the potential "pitfalls", so to speak, associated with resilience, as mentioned. This is because many studies already offer recommendations and strategies for resilience-building, but only a few touch on the possible issues that can arise when pursuing resilience as a framework within a straightforward narrative.

Such issues may include instances when policy interventions fail to recognize the multifaceted nature of a system. This may occur when variations in vulnerabilities are not properly recognized. For instance, implementing a "one size fits all" adaptation measure based solely on poverty can prove detrimental, as the circumstances among different impoverished groups or communities can be highly diverse, as noted by Friend and Moench (2013). Another critical aspect of resilience-building is the need to manage trade-offs effectively. In this regard, Friend and Moench's (2013) study also offers an interesting case in point, highlighting the conventional adaptation approach of keeping flood plains open for drainage and floodwater storage to reduce urban flooding risks. However, based on their study, it is often unconsidered that these areas are typically where the poor flock as they provide access to resources for livelihood and subsistence. Furthermore, some scholars have also pointed out that relying on an "engineering" or "bounce-back" approach to resilience-building can be problematic. The emphasis on restoring a "pre-shock" state in engineering resilience raises questions, as that previous state may have included undesirable conditions (Davoudi, 2012). While these kinds of examples are already documented in various academic literature, a cohesive, structured, and concise presentation of these discussions would have also been a valuable addition to Thomas' book given his expertise.

Several others topics were addressed by Thomas in his book but among the major themes running through the majority of its chapters revolve around the challenges posed by the mindset of public officials which often hinders the prioritization of climate action as a top policy concern. He also highlighted the shortcomings of prevalent economic approaches in incorporating climate change considerations. Thomas explained that while policymakers acknowledge the importance of addressing climate change, they still do not prioritize climate change-related investments above many other public expenditures. This tendency is driven by policy incentives that favor addressing immediate problems with immediate rewards, rather than investing in preventing future issues, such as climate change, whose benefits unfold gradually over time. From a political standpoint, Thomas also noted that voters tend to appreciate the tangible results of relief spending more than investments in preparedness. Also related to this is Thomas' point on the limitations

of conventional economic models in accounting for climate change. According to him, growth economics often disregards or even promotes growth achieved through unsustainable practices. On a technical level, he also said that there is a lack of methodological tools for conducting economic analyses that adequately integrate climate change factors. He calls for current economic approaches to stop encouraging gross domestic product (GDP) growth that does not factor in social and environmental costs. Rectifying these issues could better facilitate the integration of climate change considerations into development planning, enabling policymakers to make more holistic decisions that balance economic development with climate action.

Overall, Thomas' book is a valuable resource for those seeking to understand the basic principles and concepts related to climate change. It also delves into the current global climate crisis and highlights the imperative for increased efforts to address the issue. These themes run consistently through all chapters, each with specific nuance and focus. Policymakers will also find the book insightful in gaining a deeper understanding of the complex issues surrounding climate change and inspiring them to prioritize climate-related matters in their policy agenda. In general, many of the topics discussed in the book can already be found in previously published academic literature and official reports from reputable institutions. For instance, the function of risk and its social dimensions has already been extensively addressed and updated in reports by the IPCC. Moreover, many governments have already applied similar risk management frameworks such as in the conduct of climate and disaster risk assessment (CDRA) by local government units (LGUs) in the Philippines (HLURB, 2015). In terms of resilience, Martin and Sunley (2015) have also explored the various conceptualizations of resilience across disciplines. Thomas' concept of resilience, which is on enabling systems to adapt or transform in the face of future changes or uncertainties, aligns with Martin and Sunley's notion of "evolutionary resilience". Nonetheless, the book excels in its ability to convey these ideas in a structured and easily comprehensible manner, promoting action.

While the book is highly informative, moving forward, advanced climate change scholars, as well as policymakers, would require more than just information. Rather than simply presenting the issues, the need arises for practical steps to address these challenges. For instance, there is a need to explore strategies for shifting the mindsets of policymakers and the public, globally, towards proactive climate action. This may not just require awareness campaigns but can also involve instituting reforms, whether on an international or local scale, aimed at incentivizing climate-friendly policies and behaviors. In addition, with respect to the need to incorporate climate change considerations into prevailing economic frameworks and analyses, specific instruments, tools, and methodologies must be developed and discussed to facilitate this integration. Nevertheless, the book also serves as a stark reminder that despite years of grappling with climate change and its consequences, we often find ourselves stuck in a cycle of reiterating the same issues and confronting the same systemic challenges.

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