

# From The Future To The Present: Socioecological Transformation

**Victor Tan Chee Shien**

School of Sociology, Social Policy and Criminology, University of Stirling, UK.

[c.s.tan@stir.ac.uk](mailto:c.s.tan@stir.ac.uk)

## Abstract

In the article 'Futures: Imagining Socioecological Transformation – An Introduction' by Bruce Braun, the concept put forth with adaptation from the writings of Latour (2013), explores socioecological developments from a traditionally inverse position. Traditional sociological perspectives are informed by the past where prior experiences prepare humans, as knowledge-based entities, in navigating societal developments and effects. The concept of an inversed-informed position in the current affairs of the world becomes increasingly relevant and important, evident in the theme highlighted by COP26 held in Glasgow on the 'code red climate emergency' under the Covid-19 pandemic. Events that were outwardly localized within certain regions resulted in repercussions on a global scale that was unprecedented in the past, of which two will be discussed; Covid-19 and the Ukraine conflict. The paper features a further discussion of different paradigms, in addition to what was raised by Braun with context to resilience and sustainability: (1) the context of a highly connected world in terms of social, political, and economic; (2) humans as the only dependent variable of change. The paper will end with suggestions for policymakers and relevant organizations by noting developments in different fields that present as contextually intertwined.

**Keywords:** *resilience, ecology, development, sustainability, futures-transformation*

## Introduction

In volume 105, Issue 2 of the Annals of the Association of American Geographers, the theme of 'Futures' was discussed from a myriad of paradigms to address new challenges and developments that preludes an increasingly predictable future. As an introduction, Braun quoted Latour's (2013) perspective, which was considerably provocative perspective during his time:

*'Action cannot be delayed because time does not flow from the present to the future – as if we had to choose between scenarios, hoping for the best – but as if time flowed from what is coming.'* – Latour, 2013

The introduction sets the context for the theme of the journal, highlighting a limitation of human development in a geographical context, mirroring the understanding of social sciences. Context, while often encompassing different scenarios, is a primary cornerstone of almost all taxonomy of science regardless of physical, biological or psychological. The crux of what the journal highlighted was the untenable notion that human development can continue to advance without consideration of the increasing signs of a converging world.

---

The journal organized the articles and presented four perspectives of future inquiry through a thematic consensus: Knowing Socioecological Futures, The Politics of Socioecological Transformation, Imagined Futures: Art, Film and Literature and Experiments in Socioecological Change. Knowing Socioecological Futures highlighted perspectives from the bottom-up of which the smallest unit of the society, the people, adapt and evolve through historical context. It highlights the importance of knowledge acquisition and development, through the most important medium – human. The Politics of Socioecological Transformation demonstrates the intricacies of the connection of environment to politics, and how they paradoxically revolve around each other. Where people are determined to be the medium of change, politics, in form of governance, is the amalgamated force of humans that leads to consolidated shifts in forms of consumption habits and climate justice. Imagined Futures: Art, Film and Literature depict the creative ideas presented in various media forms, which are seemingly increasingly plausible against the otherwise ‘sci-fi’. Where politics presents as a statutory body and arts as the abstract, arts cast new possibilities of the imagined future. Experiments in Socioecological Change provide exemplars where changes are advent in smaller nucleated social settings of education and households. Braun noted from the articles submitted, that regional representation covers America, Europe and Australia predominantly with the lack of representation from other regions flagrant. The absence brings about considerations in the development of academia from those regions as gaps in the existing body of knowledge, indirectly suggesting that the focus of scholars and academics within those regions has either advanced to or yet to embrace this avenue of socio-development.

The journal noted two themes from the submissions: (1) that socioecological transformations are coming, although the form and shape are not easily predicted; and (2) that socioecological changes are also necessary if we are to avoid catastrophic futures. The relation of how context, presented by current world developments, and sustainability considerations contribute to the development of resilience becomes imperative. The paper puts forth further discussion of two other meanings that can be understood from the paper: (1) evidence suggests a highly connected world in terms of social, political, and economic that must be equally addressed in the triumvirate; and that (2) human, are the only dependent variable of change. They will be discussed broadly, in addition to what was raised by Braun, with context to resilience and sustainability.

## Resilience

While there are many discussions on how to define resilience, consensus would agree on resilience being an aspect that embodies processes. The processes in referral refer to the (1) positive and healthy (2) adaptation or integration (3) overtime in face of (4) adversities (Southwick et al., 2014, Pisano, 2012, Kantabutra & Ketprapakorn, 2021, Barrett et al., 2021). The four distinct dependent clauses create a complex construct of dynamic relations between multiple variables of determinants: (1) ‘positive and healthy’ highlights the importance of functions that are beneficial in nature; (2) ‘adaption or integration’ emphasizes the need for functions to be engaged by both internal and external human operations; (3) ‘over time’ stresses the need for those functions to correspondingly sustain chronological influences and fluctuations given how circumstances can change and evolve; (4) ‘adversities’ represents the

---

---

actual challenges and tests of those functions in the real-world context. From a social science perspective, resilience can be understood as a social process where conditional events and processes must occur for it to fulfil its developmental purpose. An important consideration, as with all social science perspectives, is the context in which these conditional events and processes occur under.

Upon analysing all the articles, at least two more distinct themes can be interpreted from *Futures: Imagining Socioecological Transformation*: (1) evidence suggests a highly connected world in terms of social, political, and economic that must be equally addressed in the triumvirate; and that (2) human, are the only dependent variable of change. Both the interpreted theme addresses the context for the development of resilience, with the entirety of the world viewed as a singular context, and humans are the sole architect that can react correspondingly or construct the future. Socioecology views the ability of humans to adapt and respond to the environment, which eventually also shapes the environment, as the core that drives human development (Oishi & Graham, 2010, Stokols, Lejano & Hipp, 2013).

Futures provided the different paradigms of connections in the social, political, economic, and environmental aspects. From the social and political paradigm, the involvement and effects of the distinct levels of society were evident from households (Chapter 5, 20, 21), to larger communities (Chapter 3, 4, 18, 19), to the global political context (Chapter 6, 8, 9). Economic viability has increasingly gained stake-hold in social and political development due to the realistic aspect of it as a condition for survivability. The environment paradigm and its dependency on the political sphere were highlighted in almost all the submitted articles where a constant underlying theme was that the notion of a 'natural environment' is no longer as justifiable as a notion. Humans in the current age have attained the capability and resources to alter most natural environment should they wish to, that the meta decision made to preserve the environment is thus humanely deterministic. Where concepts of ecology revolve around 'organism', 'relations', and 'environment', the current development of human society reached an unprecedented convergence where geographic and political boundaries are no longer as distinct. Rather than individual constructs that can develop in silos, the enmeshment of repercussions details the need for consideration in totality. Post the publishing of *Futures*, two global events occurred that validated the considerations that *Futures* seek to illuminate: the Covid-19 pandemic and the Ukraine-Russia conflict.

## **Adversities**

Following the theory of resilience, adversities represent the actual test of how adaptive or integrated the developed strategies are in a cyclical process that recalibrates with new systemic addresses. From a bioecology perspective, the grim results of adversity that cannot be overcome would signify the end of the biosystem and the advent of a new biosystem would take over.

### **Covid-19**

In late 2019, the novel coronavirus SARS-CoV-2, more commonly known as Covid-19, began to spread globally, resulting in a pandemic that registered over 500 million confirmed cases and claimed 6 million lives as of April 2022 (Weekly Epidemiological Update on COVID-19 –

---

---

27 April 2022, 2022). The pandemic exposed weaknesses as well as advantages of the current human-ecological systems, of which when discussed with objectivity, the following can be posited: the deep level of connection between nature and humans, the advanced global transport system, and the connectedness of the global capitals (Lunstrum et al., 2021). Wong (2021) highlighted how the manifestation of zoonotic viruses such as Covid-19 and SARS revealed the deep ties between humans and nature. The nature of the contact that allowed such viruses to evolve highlights the proximity of human-nature contact. The speed of how fast the virus spread to all parts of the world and how ineffective steps were to combat the spread was, indirectly highlighted the effectiveness of the global transport infrastructure and the dependency on the economic system. The 2020 Goalkeepers Report by the Bill and Melinda Gates Foundation reports findings that in the first 25 weeks of the rampant spread of the virus, the world's development was set back by 25 years (Paun, 2020, Newey & Nuki, 2020). The environment inversely benefited from the pandemic with records of reduction of pollution between 25-30% on carbon indicators around the world (Berman & Ebisu, 2020, Muhammad, Long & Salman, 2020).

### **Ukraine Conflict**

24 February 2022 marked the escalation of the Ukraine-Russia conflict that generated a momentous shift in the stance of world powers that, as of the writing of the paper, still developing (The Ukraine Crisis, n.d). Understanding the collateral of what the conflict meant with objectivity, was the global inflation of fossil fuels and a global food security crisis (Rojansky, 2016, Conant, 2022). The conflict exposed the frail economic and social systems which were crafted based on trade relations supported by the geopolitical stability of the past. With Ukraine being the major exporter of wheat, corn and sunflower oil, with Russia closely behind, it created a vacuum in food commodities around the world upon the start of the conflict (World Bank, 2022). Russia, being the third-largest petroleum and liquid fuels producer in the world, also created an outage in the energy-demand-intensive society since the start of the conflict, causing inflation of energy prices across the globe.

### **Resilience-led Transformation**

The adversities presented by Covid-19 and the Ukraine Conflict accentuated propositions for the reconsideration of how resilience and human society shape the environment for the society to thrive. When understood as a process that must embody dynamism to react to adversities, resilience must account for elements that span across institutions, epistemology, and scale-related boundaries (Stokols, Lejano & Hipp, 2013). Addressing resilience must be conducted in the spectrum of the construct of the society; social, political, and economic. Such was the failure of the early policies adopted against Covid-19 seen in many countries which created more predicaments than answered, and the Ukraine-Russia conflict where the political boundaries were tested. The lesson learnt, was that a consensus of collective response was necessary and that any individually separated effort will simply lead to the failure of the entire global system. Abel *et.al* highlighted the key roles of human, social, physical, and financial capitals in the resilience of socioecological systems (Abel, Cumming & Anderies, 2006). The ESDN Quarterly Report 2012 noted the importance of governance to reach an equilibrium of the conservationists, developers, and communities to build a robust

---

---

foundation that can manage adversities that arises (Pisano, 2012). All factors of management, however, circle back to sustainability as the core principle which presides over all four dependent clauses of resilience as a basic criterion. Such was also highlighted by the United Nations which developed the Sustainable Development Goals (SDGs) in 2015 (United Nations Development Programme, 2015).

From the macro to the micro, the resilience of smaller social units at the community level can be observed from their response to disasters as first respondents. Research has shown that self-efficacy and collective efficacy plays a vital role in crisis management (Sulkowski & Lazarus 2013, Southwick et al., 2014, Barrett et al., 2021). Collective efficacy in crisis response increases the speed of response and recovery from disaster, whether natural or manmade (Maguire & Hagan, 2007, Sulkowski & Lazarus, 2013, Imperiale & Vanclay, 2016). Imperiale and Vanclay researched post-disaster communities and found that community resilience emerges in times of crisis and, that enabling them contributes directly to sustainable development. Even when humans are unable to control all earthly responses, we are the only dependent variable when adversities ensue, evident in the environmental recovery during the Covid pandemic, and cannot shrink our roles as architects and directors of pre, during and post-event. The building of resilience, as human capital, should thus start with education as the fundamental (Maguire & Hagan, 2007, Stokols, Lejano & Hipp, 2013, Sulkowski & Lazarus, 2013). Serving as the platform where knowledge is cultivated and grown, the role that education plays in society as stems of development must be supported and bolstered.

## Afterword

The human-nature environment interpretations of today, where the boundaries are understood to be merged, puts human activities as the directors of development, thus also as custodians of earthly environment. Further research and developments in empirical-based predictive research, specific to natural sciences, need to be taken to inform humanity as a totality to respond to challenges presented in the current world. With education serving as the basis for informed decision-making, the conscious stance of placing humans as the determiners of the future will keep us vigilant. Futures reminds humans of our roles, whether macro or micro, in dictating the emergent future.

## References

- Abel, N., Cumming, D. H. M., & Anderies, J. M. (2006). Collapse and Reorganization in Social-Ecological Systems: Questions, Some Ideas, and Policy Implications. *Ecology and Society*, 11(1). <https://doi.org/10.5751/es-01593-110117>
- Barrett, C. B., Ghezzi-Kopel, K., Hoddinott, J., Homami, N., Tennant, E., Upton, J., & Wu, T. (2021). A scoping review of the development resilience literature: Theory, methods and evidence. *World Development*, 146, 105612. <https://doi.org/10.1016/j.worlddev.2021.105612>
- Berman, J. D., & Ebisu, K. (2020). Changes in U.S. air pollution during the COVID-19 pandemic. *Science of the Total Environment*, 739, 139864. <https://doi.org/10.1016/j.scitotenv.2020.139864>
-

- 
- Braun, B. (2015). Futures: Imagining Socioecological Transformation – An Introduction. *Annals of the Association of American Geographers*, 105(2), 239–243. <https://doi.org/10.1080/00045608.2014.1000893>
- Conant, E. (2022, February 18). *Russia and Ukraine: the tangled history that connects – and divides – them*. National Geographic. <https://www.nationalgeographic.com/history/article/russia-and-ukraine-the-tangled-history-that-connects-and-divides-them>
- How is the war in Ukraine affecting food security? (2022). World Bank. <https://www.worldbank.org/en/news/video/2022/04/05/the-impact-of-the-war-in-ukraine-on-food-security-world-bank-expert-answers>
- Imperiale, A. J., & Vanclay, F. (2016). Experiencing local community resilience in action: Learning from post-disaster communities. *Journal of Rural Studies*, 47, 204–219. <https://doi.org/10.1016/j.jrurstud.2016.08.002>
- Kantabutra, S., & Ketprapakorn, N. (2021). Toward an Organizational Theory of Resilience: An Interim Struggle. *Sustainability*, 13(23), 13137. <https://doi.org/10.3390/su132313137>
- Lunstrum, E., Ahuja, N., Braun, B., Collard, R., Lopez, P. J., & Wong, R. W. Y. (2021). More-Than-Human and Deeply Human Perspectives on COVID-19. *Antipode*. <https://doi.org/10.1111/anti.12730>
- Maguire, B., & Hagan, P. (2007). Disasters and Communities: Understanding Social Resilience. *The Australian Journal of Emergency Management*, 22(2), 16–20. <https://doi.org/10.1016/j.aejm.2007.05.002>
- Muhammad, S., Long, X., & Salman, M. (2020). COVID-19 pandemic and environmental pollution: A blessing in disguise? *Science of the Total Environment*, 728, 138820. <https://doi.org/10.1016/j.scitotenv.2020.138820>
- Newey, S., & Nuki, P. (2020, September 15). How the pandemic set global development back '25 years in just 25 weeks'. *The Telegraph*. <https://www.telegraph.co.uk/global-health/climate-and-people/pandemic-set-global-development-back-25-years-just-25-weeks>
- Oishi, S., & Graham, J. (2010). Social Ecology. *Perspectives on Psychological Science*, 5(4), 356–377. <https://doi.org/10.1177/1745691610374588>
- Paun, C. (2020). *25 years wiped out in 25 weeks: Pandemic sets the world back decades*. POLITICO. Retrieved May 23, 2022, from <https://www.politico.com/news/2020/09/14/gates-report-pandemic-world-setbacks-414934>
- Pisano, U. (2012). *Resilience and Sustainable Development: Theory of resilience, systems thinking and adaptive governance* European Sustainable Development Network ESDN Quarterly Report N°26. ESDN.
- Rojansky, M. (2016). The Ukraine-Russia Conflict: A Way Forward. *Security and Human Rights*, 27(3-4), 315–325. <https://doi.org/10.1163/18750230-02703008>
-



- 
- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary Perspectives. *European Journal of Psychotraumatology*, 5(1), 25338. <https://doi.org/10.3402/ejpt.v5.25338>
- Stokols, D., Lejano, R. P., & Hipp, J. (2013). Enhancing the Resilience of Human-Environment Systems: a Social Ecological Perspective. *Ecology and Society*, 18(1). <https://doi.org/10.5751/es-05301-180107>
- Sulkowski, M. L., & Lazarus, P. J. (2013). Five Essential Elements of Crisis Intervention for Communities and Schools When Responding to Technological Disasters. *International Journal of School & Educational Psychology*, 1(1), 3–12. <https://doi.org/10.1080/21683603.2013.780192>
- The Ukraine Crisis*. (n.d.). [Stories.cgtneurope.tv](https://stories.cgtneurope.tv). Retrieved May 7, 2022, from <https://stories.cgtneurope.tv/ukraine-crisis-timeline/index.html>
- United Nations Development Programme. (n.d.). *Sustainable Development Goals | United Nations Development Programme*. Retrieved May 27, 2022, from [https://www.undp.org/sustainable-development-goals?utm\\_source=EN&utm\\_medium=GSR&utm\\_content=US\\_UNDP\\_PaidSearch\\_Brand\\_English&utm\\_campaign=CENTRAL&c\\_src=CENTRAL&c\\_src2=GSR&gclid=Cj0KCQjwhLKUBhDiARIsAMaTLnGyhd2NPr6xbeZhzu8Agzl2z\\_j9gF2yf7UJ6ZaA0l75umbbYE9eQa8aAqOEEALw\\_wcB](https://www.undp.org/sustainable-development-goals?utm_source=EN&utm_medium=GSR&utm_content=US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=Cj0KCQjwhLKUBhDiARIsAMaTLnGyhd2NPr6xbeZhzu8Agzl2z_j9gF2yf7UJ6ZaA0l75umbbYE9eQa8aAqOEEALw_wcB)
- Weekly epidemiological update on COVID-19 – 27 April 2022*. (2022, April 27). [Www.who.int](https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---27-april-2022). <https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---27-april-2022>
-