BMF CP65: Factors influencing the formation of climate change belief among Nepalese smallholder farmers

AISDL Team

Jan. 30, 2024

"As time passes, news about the now hotter Earth buzzes through the bird village. [...] As Kingfisher casts his gaze upon the events that have unfolded, he can't help but feel a sense of unease creeping up within him. He decides to collect all the scientific information concerning climate change and greenhouse gas emissions."

—In "GHG Emissions"; *The Kingfisher Story Collection* [1].

1. Project description

1.1. Main objectives

The current study is conducted to examine the following research questions:

- What factors can contribute to the formation of the climate change belief among Nepalese smallholder farmers?

Findings from this study are expected to contribute to promoting the eco-surplus culture for achieving the environmental semiconducting principle [3-5].

1.2. Materials

The mindsponge theory will be used for conceptual development, and Bayesian Mindsponge Framework (BMF) analytics will be used for statistical analysis on a dataset of 327 farmers in Sudurpaschim Pradesh (Far Western Province), Nepal [6-8]. The bayesvl R package, aided by the Markov chain Monte Carlo (MCMC) algorithm, will be employed for statistical analyses [9]. For more information on BMF analytics, portal users can refer to the following book [10]. Data and code snippets of this initial analysis were deposited at https://zenodo.org/records/10589178.

1.3. Main findings

The preliminary analysis shows that observations of natural changes in the past 20 years are important factors contributing to the formation of the climate change belief among Nepalese farmers (see Figure 1). Whereas being a member of local community cooperatives is positively associated with climate change belief, having access to the market, participating in climate change adaptation training, and being a member of a group of farmers in the community are negatively associated with climate change belief (although the associations are moderately and weakly reliable). Farmers residing in different agroecosystems (i.e., Terai, hill, and mountain) also have various levels of climate change beliefs.

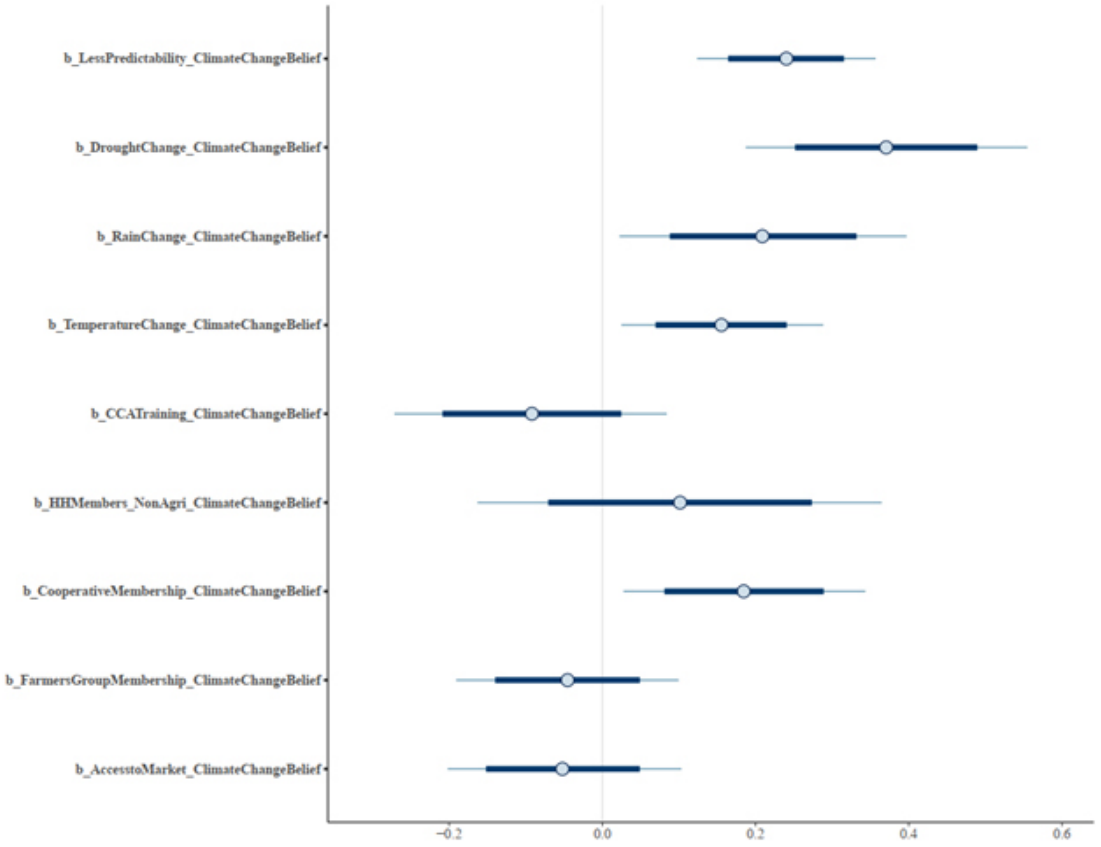

Figure 1: Estimated coefficients

2. Collaboration procedure

Portal users should follow these steps for registering to participate in this research project:

1. Create an account on the website (preferably using an institution email).
2. Comment on your name, affiliation, and desired role in the project below this post.
3. Patiently wait for the formal agreement on the project from the AISDL mentor.

If you have further inquiries, please contact us at aisdl_team@mindsponge.info

If you have been invited to join the project by an AISDL member, you are still encouraged to follow the above formal steps.

All the resources for conducting and writing the research manuscript will be distributed upon project participation.

AISDL mentor for this project: ***Minh-Hoang Nguyen***.

AISDL members who have joined this project are Quan-Hoang Vuong and Viet-Phuong La.

The research project strictly adheres to scientific integrity standards, including authorship rights and obligations [11], without incurring an economic burden at participants' expenses [12].

References

[1] Vuong QH. (2022). *The Kingfisher Story Collection*. https://www.amazon.com/dp/B0BG2NNHY6

[2] Colasante A, D'Adamo I. (2021). The circular economy and bioeconomy in the fashion sector: Emergence of a "sustainability bias". *Journal of Cleaner Production*, 329, 129774. https://linkinghub.elsevier.com/retrieve/pii/S0959652621039500

[3] Vuong QH, *et al*. (2020). Identifying the moral–practical gaps in corporate social responsibility missions of Vietnamese firms: An event-based analysis of sustainability

feasibility. *Corporate Social Responsibility and Environmental Management*, 28(1), 30-41. https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.2029

[4] Vuong QH. (2021). The semiconducting principle of monetary and environmental values exchange. *Economics and Business Letters*, 10(3), 284-290. https://reunido.uniovi.es/index.php/EBL/article/view/15872

[5] Nguyen MH, Jones TE. (2022). Building eco-surplus culture among urban residents as a novel strategy to improve finance for conservation in protected areas. *Humanities and Social Sciences Communications*, 9, 426. https://www.nature.com/articles/s41599-022-01441-9

[6] Nguyen MH, La VP, Le TT, Vuong QH. (2022). Introduction to Bayesian Mindsponge Framework analytics: An innovative method for social and psychological research. *MethodsX*, 9, 101808. https://linkinghub.elsevier.com/retrieve/pii/S2215016122001881

[7] Vuong QH. (2023). *Mindsponge Theory*. De Gruyter. https://www.amazon.com/dp/8367405145/

[8] Vuong QH, Napier NK. (2015). Acculturation and global mindsponge: An emerging market perspective. *International Journal of Intercultural Relations*, 49, 354-367.

[9] D'Adamo I, Colasante A. (2022). Survey data to assess consumers' attitudes towards circular economy and bioeconomy practices: A focus on the fashion industry. *Data in Brief*, 43, 108385.

[10] La VP, Vuong QH. (2019). bayesvl: Visually Learning the Graphical Structure of Bayesian Networks and Performing MCMC with 'Stan'. *The Comprehensive R Archive Network*. https://cran.r-project.org/web/packages/bayesvl/index.html

[11] Vuong QH, Nguyen MH, La VP. (2022). *The mindsponge and BMF analytics for innovative thinking in social sciences and humanities*. De Gruyter. https://www.amazon.com/dp/8367405102/

[12] Vuong QH. (2020). The limitations of retraction notices and the heroic acts of authors who correct the scholarly record: An analysis of retractions of papers published from 1975 to 2019. *Learned Publishing*, 33(2), 119-130. https://onlinelibrary.wiley.com/doi/abs/10.1002/leap.1282

[13] Vuong QH. (2018). The (ir)rational consideration of the cost of science in transition economies. *Nature Human Behaviour*, 2, 5. https://www.nature.com/articles/s41562-017-0281-4