BMF CP41: Impacts of livestock production and trading difficulties on Philippine households' food insecurity

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1. Project description

1.1. Main objectives

The current study has three objectives:

1. Examine how livestock production and trading difficulties affect the households' likelihood of experiencing extreme food insecurity.
2. Examine how livestock production and trading difficulties affect the households' likelihood of experiencing food insecurity.
3. Examine how livestock production and trading difficulties affect the households' likelihood of experiencing a lack of nutrition.
4. Examine the main reasons leading to livestock production difficulties.
5. Examine the main reasons leading to livestock trading difficulties.

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

2,087 households representative at the regional level for seven of 18 regions in the Philippines [1-3]. The dataset was collected and processed by the Food and Agriculture Organization (United Nations) and Data in Emergencies Hub (Food and Agriculture Organization). The *bayesvl* R package, aided by the Markov chain Monte Carlo (MCMC) algorithm, will be employed for statistical analyses [4-7]. For more information on BMF analytics, portal users can refer to the following book [8].

1.3. Main findings

The analysis shows that households facing difficulties in livestock production are more likely to experience extreme food insecurity conditions, but the effect is weakly reliable. Meanwhile, facing difficulties in livestock trading is associated with a higher likelihood of experiencing extreme food security conditions, and the effect is highly reliable (see Figure 1).

Moreover, livestock production and trading difficulties are also associated with a higher likelihood of experiencing food security conditions, but the effect of trading difficulties on food security conditions is relatively stronger than that of production difficulties (see Figure 2).

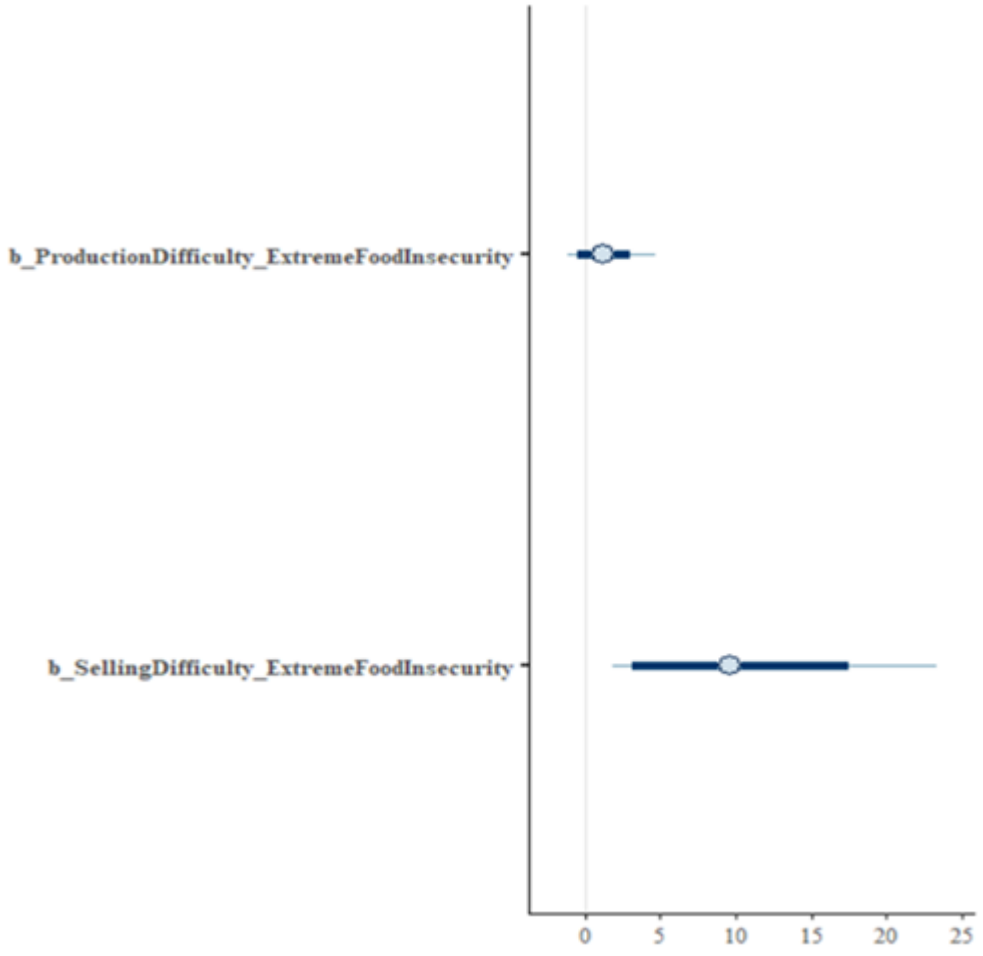

Figure 1. Model 1's posterior distributions.

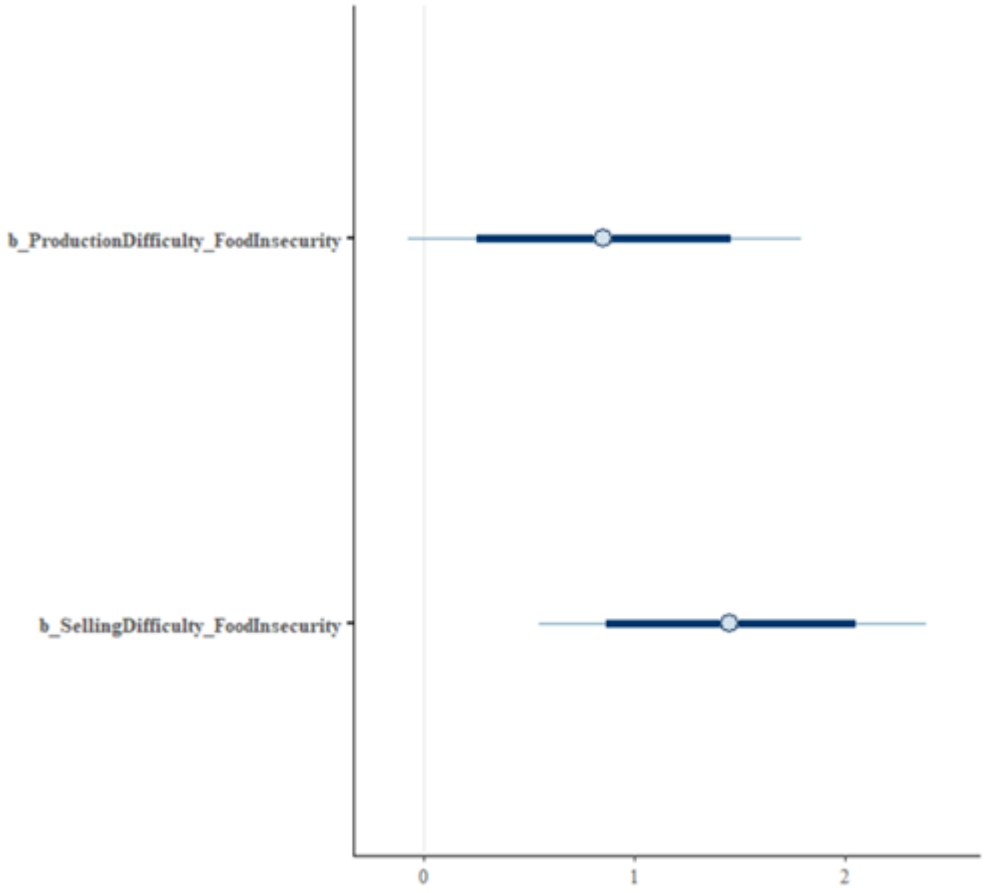

Figure 2. Model 2's posterior distributions.

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's email).
2. Comment your name, affiliation, and your 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: ***Adrino Mazenda***, Minh-Hoang Nguyen.

AISDL members who have joined this project: Tam-Tri Le, Quan-Hoang Vuong.

The research project strictly adheres to scientific integrity standards, including authorship rights and obligations [9], without incurring an economic burden at participants' expenses [10].

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