

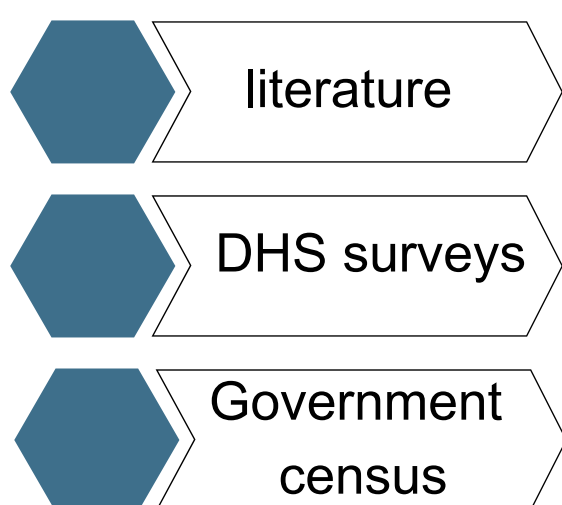
Beyond Dollars : Rethinking Flood Impact Assessment in Vulnerable Communities of Bangladesh

INTRODUCTION

Bangladesh ranks as the seventh most disaster-prone country globally. Its low-lying topography and rising sea levels from climate change put its growing population at risk. This study aims to better understand how flooding impacts health and economic factors, and to explore a novel way of understanding the dynamics between each factor. In doing so, encourage efforts in implementing preventative measures.

METHOD

Main sources:



Given the brief nature of this study, it focuses on factors which were hypothesised to have the largest impact, like diarrheal epidemics and agricultural destruction, while still aiming to maintain a broad scope.

HEALTH FACTORS

Year	No. cases	No. fatalities	No. examined cases
1985	47,150	4,101	4,983
1986	53,046	3,997	3,432
1987*	303,391	4,726	3,692
1988*	988,391	3,676	13,879
1989	43,535	1,783	-
1990	48,916	1,309	-

Table 1: No. cases show the number of reported cases of Cholera in the given year while no. fatalities is the number of deaths from Cholerae in said year. Years with an asterisk are years which there were flooding. Number of cases are significantly higher in years of flooding.

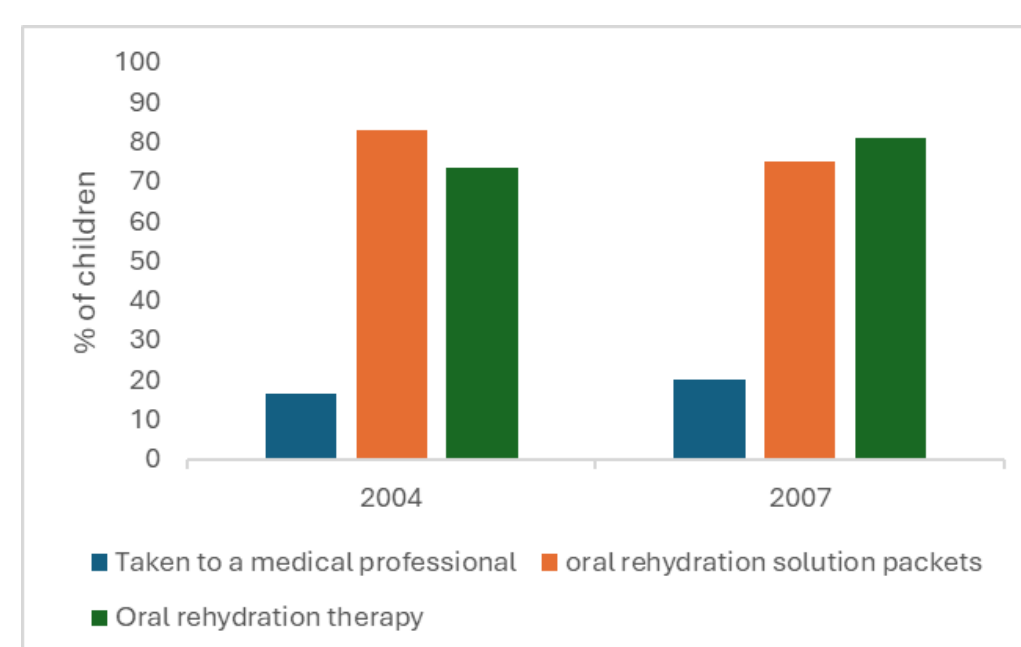


Figure 1: comparison of the % children that received specific treatment for diarrhoea.

An increase in commercialisation in ORS is shown in 2004. Oral rehydration was unchanged from the 1999-2000 to the 2004 survey (DHS 1999-2000, 2004, 2007)

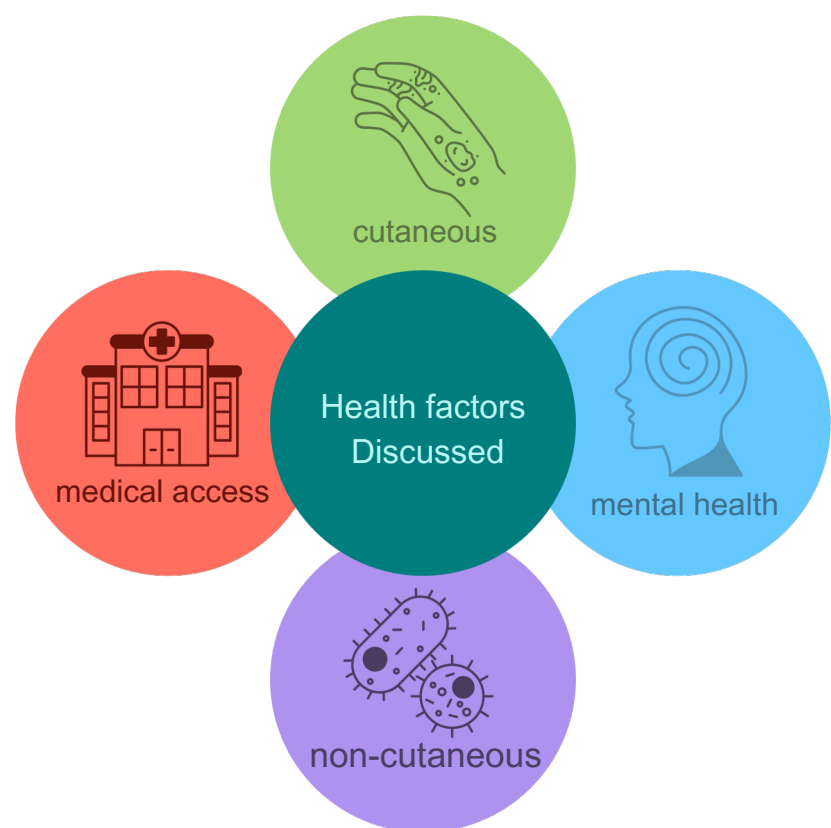


Figure 3: Summary of main health categories discussed in this study.

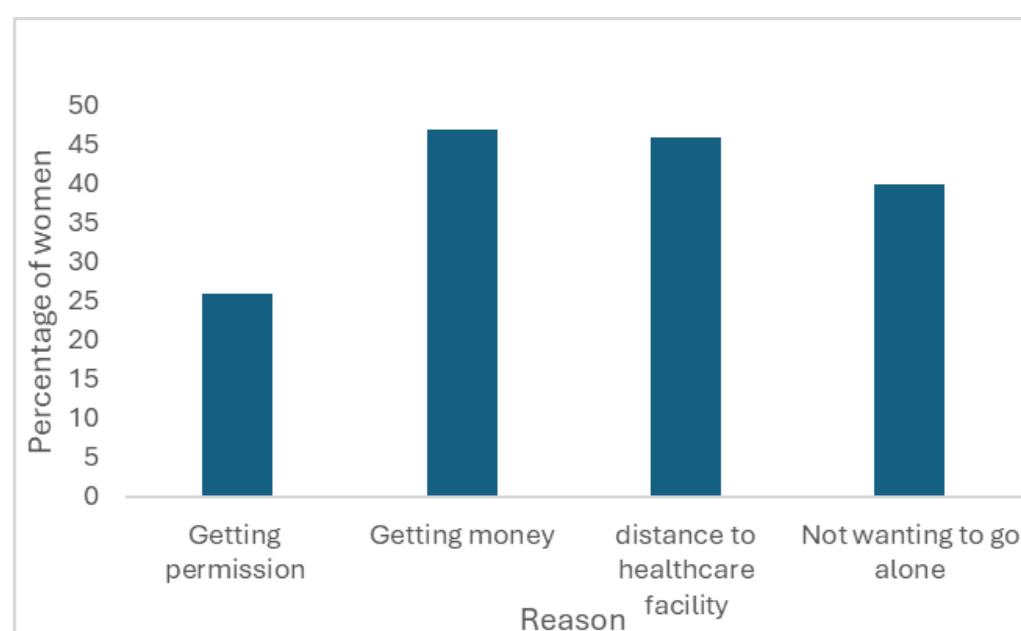


Figure 2: shows % of women who stated that one or more of these reasons were hindering their access to healthcare. (DHS, 2022)

ECONOMIC FACTORS

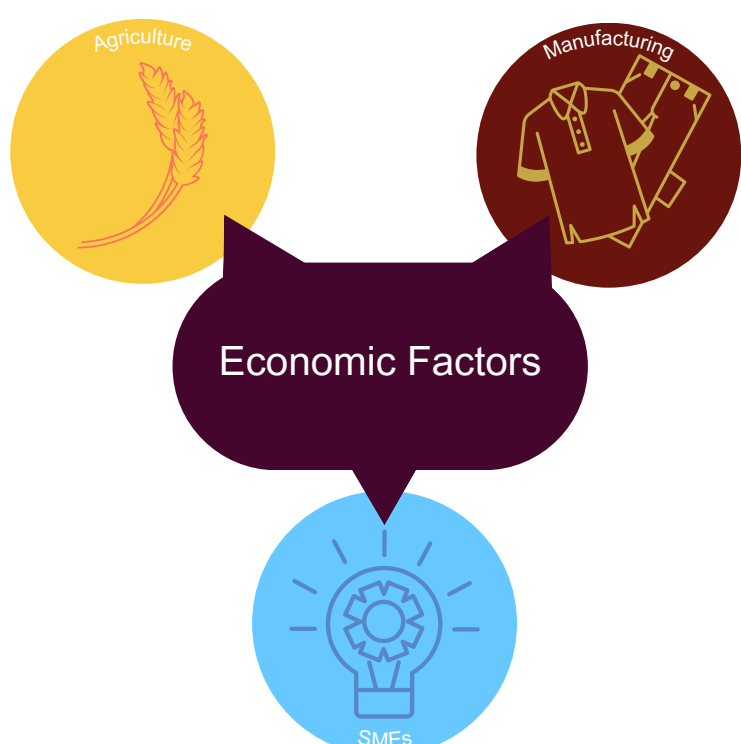


Figure 5: Summary of economic factors discussed in this study. These factors are used to illustrate the web assessment method later

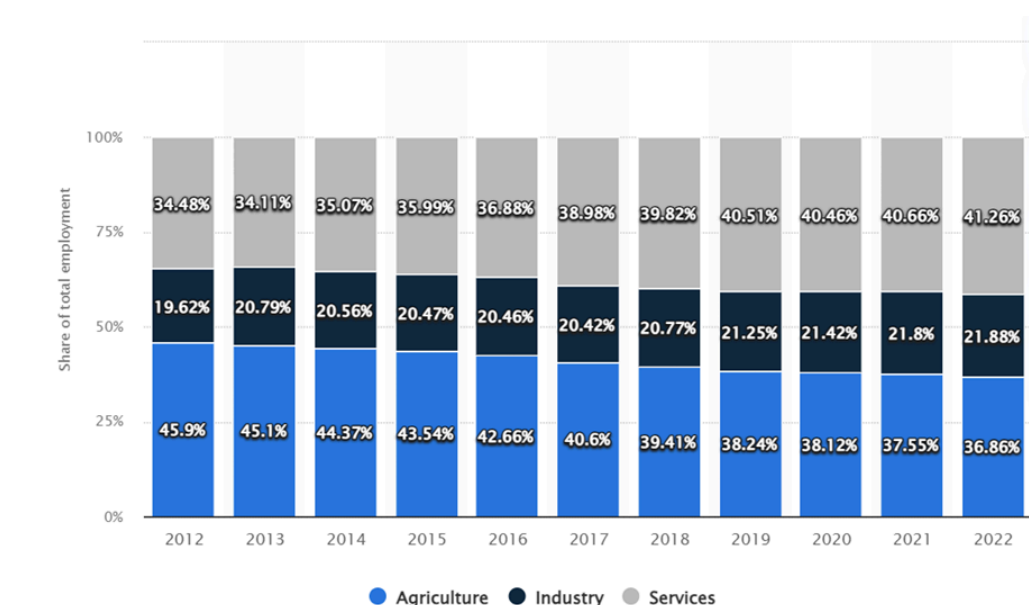


Figure 4: shows percentage of people employed in Agriculture, Industry and Services over a decade (World Bank 2024)

WEB INDICATOR

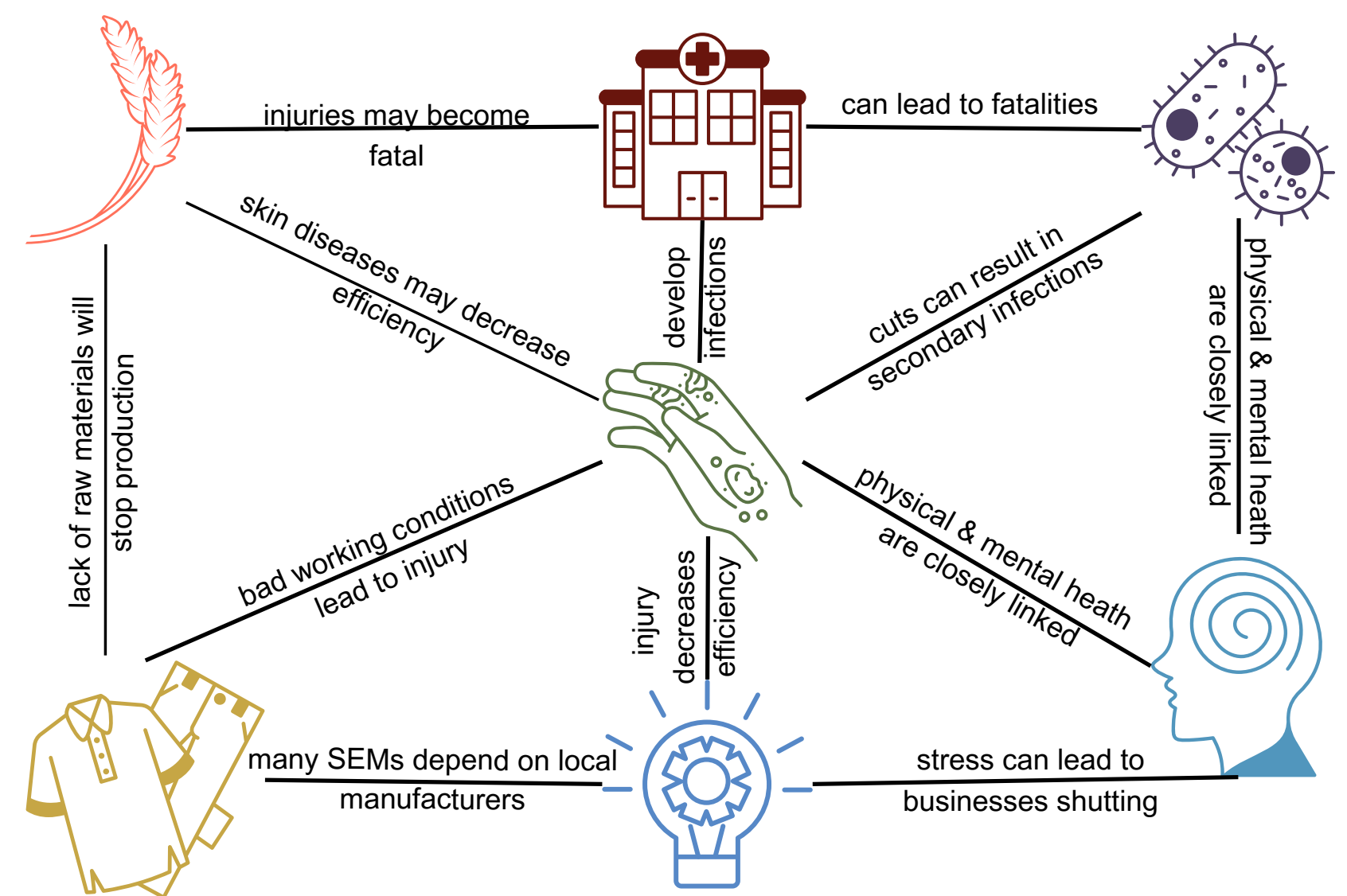


Figure 6: A simplified web analysis diagram containing the factors discussed. The web contains one point that impacts factor A to factor B but there are multiple factors. Hence, why the text is required to supplement the web.

- connects economic and health indicators in an easy-to-understand format
- improvement from traditional hazard, vulnerability, risk assessment
- promotes collaboration between sectors
- encourages community efforts in sectors which are most neglected
- encourage top down support in schemes to help vulnerable communities
- equips non-profit organisations with understanding of where to operate in a different country

CONCLUSION

Web Indicator effectively addresses the dynamic relationships between various factors, clearly illustrating their interconnections, which enables the efficient implementation of preventative measures.

Complexity of Analysis: A multi-sector analysis is complex; understanding relationships requires studying various contributing factors independently to avoid oversimplification.

Bias Risks: Researchers may unintentionally introduce bias by assuming a single factor is the primary cause of, for example, business failure

Importance of Thorough Research: Comprehensive research is crucial for accurately representing the interconnected factors, which may require a lot of time and resources.

Temporal and Spatial limitations of current research: much of the literature covers multiple locations and time periods within individual studies, making it challenging to track and locate relevant information effectively.

FURTHER RESEARCH

- Research gaps on the psychological impacts of flooding need to be addressed.
- Multi-sector analyses should also include political and social factors.
- Governance significantly affects a country's resilience, and Bangladesh's recent political upheaval has led to major economic and systemic changes.