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**The relationship between Climate Change Induced  
Natural Disasters and Selected Nutrition Outcomes  
and WASH practices**  
*A Case of Cyclone Idai*



# Presentation Outline

1. Background
2. Objectives
3. Methodology
4. Results and discussion
5. Conclusion





# Background

- Increased frequency of climate-induced disasters.
- Zimbabwe hit by Cyclone Idai (March 2019) - about 270,000 people were affected, 341 died, 15,230 displaced and more than 350 are still missing to date.
- Huge impact of climate-induced disasters on agriculture, health (including mental health), and nutrition.
- Impact of climate-induced disasters understudied in Zimbabwe and sub-Saharan Africa.
- **Objective of the study was to assess the association between Cyclone Idai on selected food and nutrition security outcomes and WASH**



**Destruction caused by Cyclone Idai at Kopa Growth Point, the epicentre of Cyclone Idai and boundary between Chimanimani and Chipinge district**







# Methodology



Table 1. Categorisation of severity of Cyclone Idai

Severity	Characteristics
Category 5	Extensively affected and relocated to new houses
Category 4	Extensively affected, and still living in camps
Category 3	Extensively affected but still living in their homes
Category 2	Moderately affected
Category 1	Not affected

Table 2. Sampling and Sample Size

District	Wards	Sample size
1. Buhera	4	238
2. Chimanimani	4	125
3. Chipinge	6	172
Total sample	14	535

Table 3. Nutrition indicators used

Nutrition indicators	Method
1. Household dietary diversity (HDDS)	FANTA guidelines (2006)
2. Minimum dietary diversity score women (MDD-W)	FAO guidelines (FAO, 2021)
3. Minimum dietary diversity for children (MDD-C)	FAO guidelines (FAO, 2021)
4. Food Consumption score (FCS)	WFP guidelines (2022)

Table 4. WASH indicators used

WASH indicators
1. Main water source
2. Type of toilet
3. Number of households sharing toilet
4. Presence of a handwashing facility



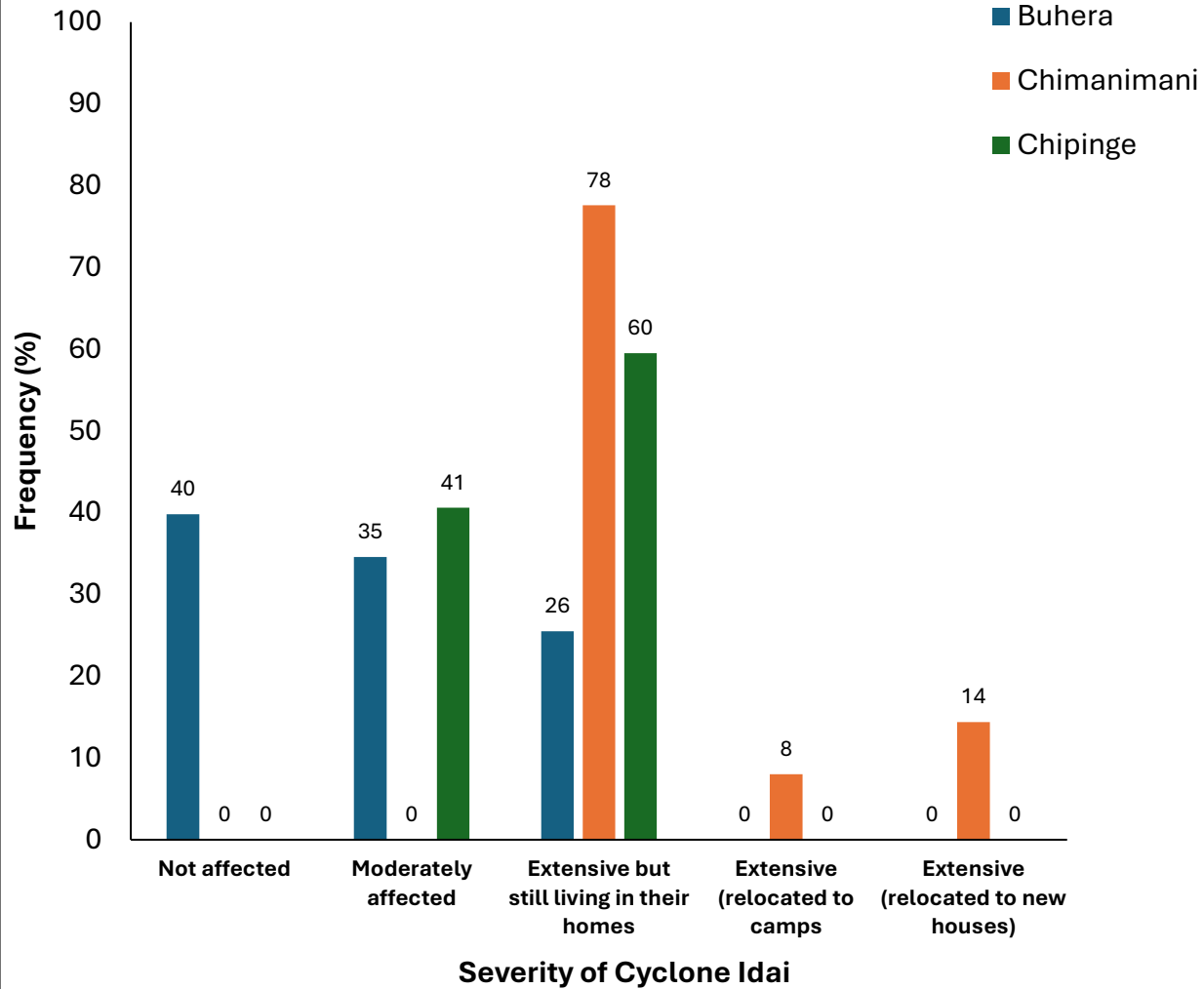


# Results

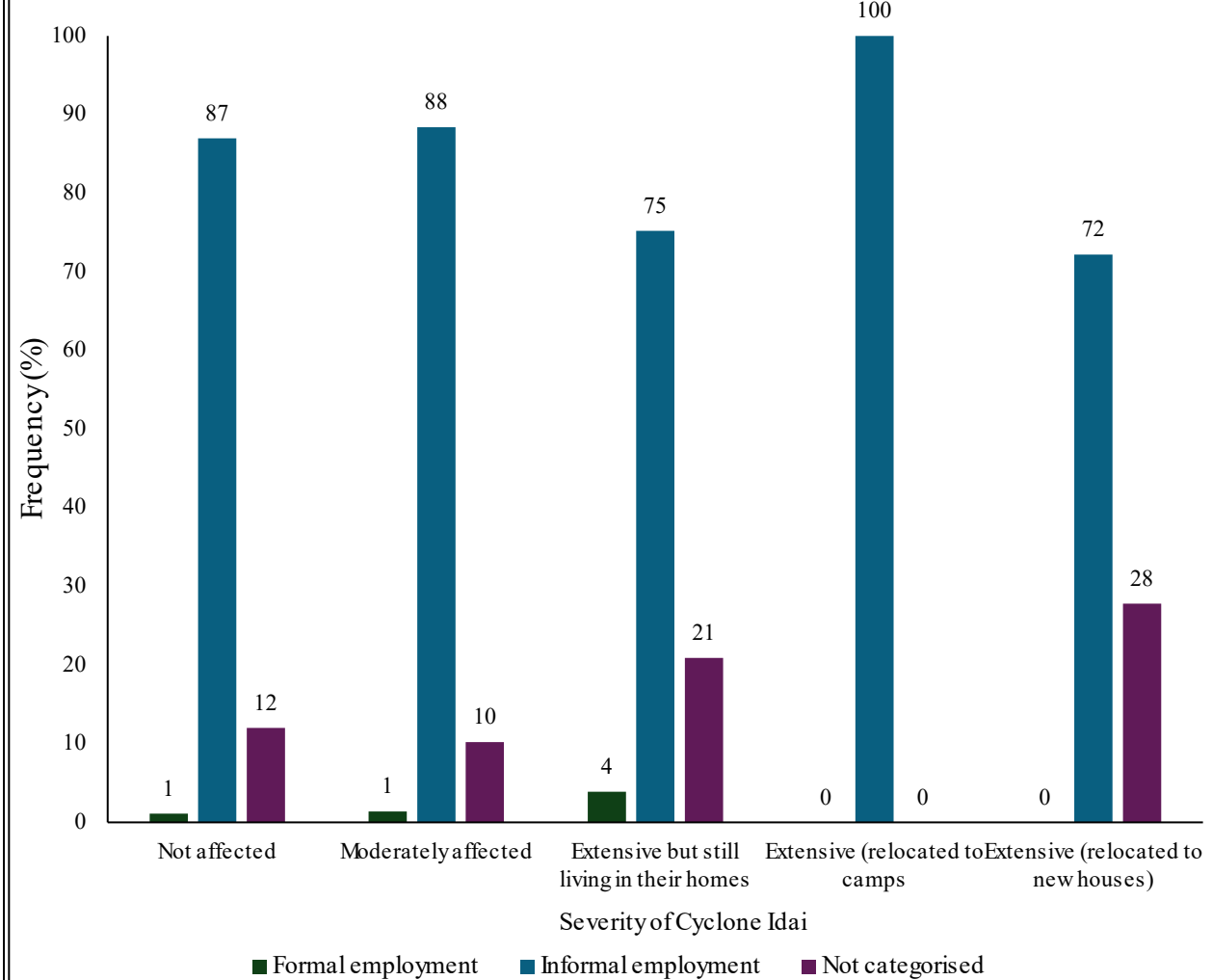


# Demographics

Severity of Cyclone Idai by District



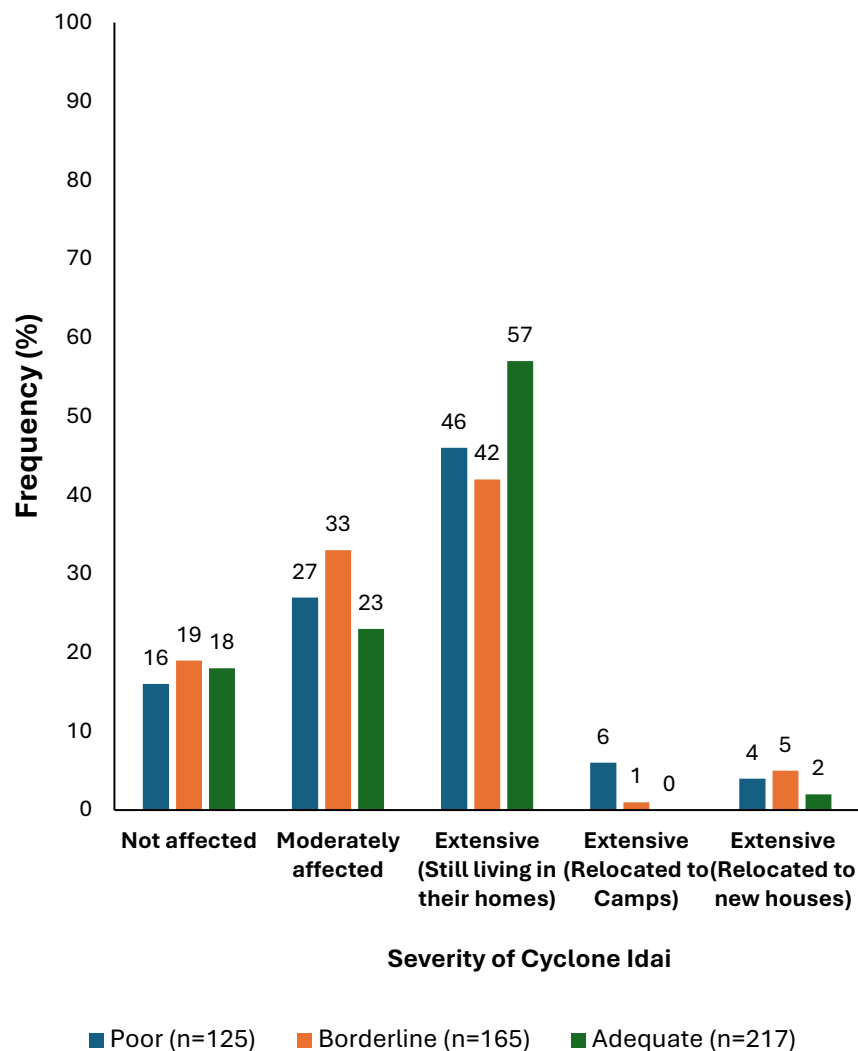
Severity of Cyclone Idai by Employment status



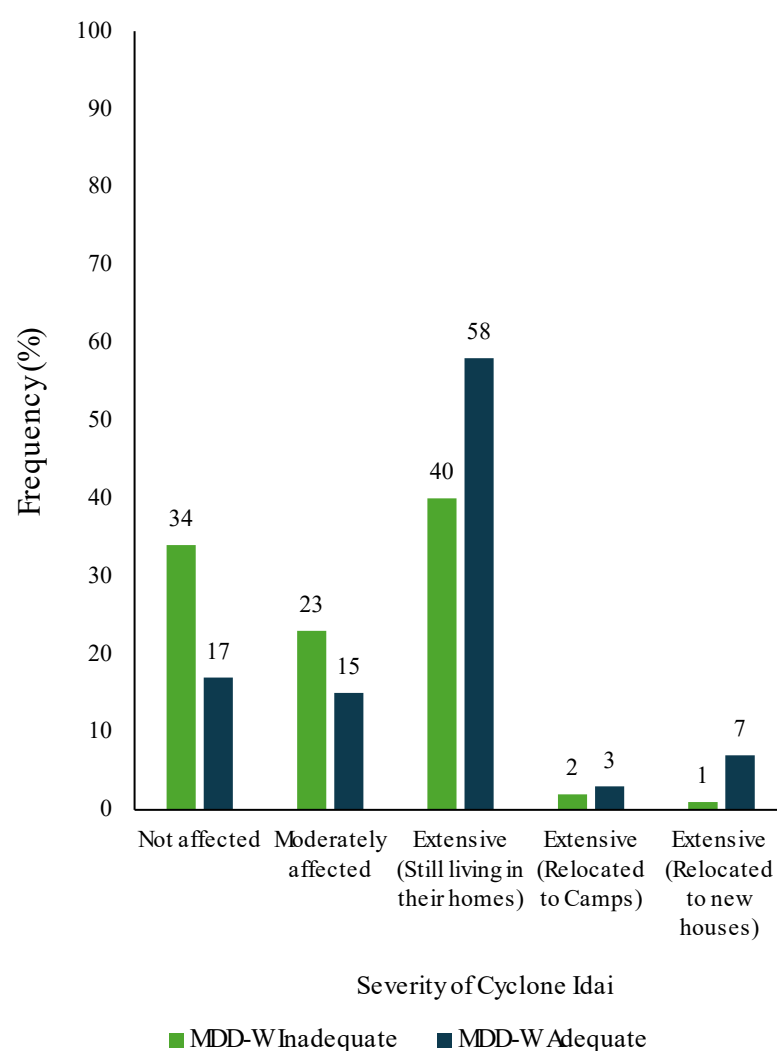


# Impact of Cyclone Idai on Nutrition Outcomes

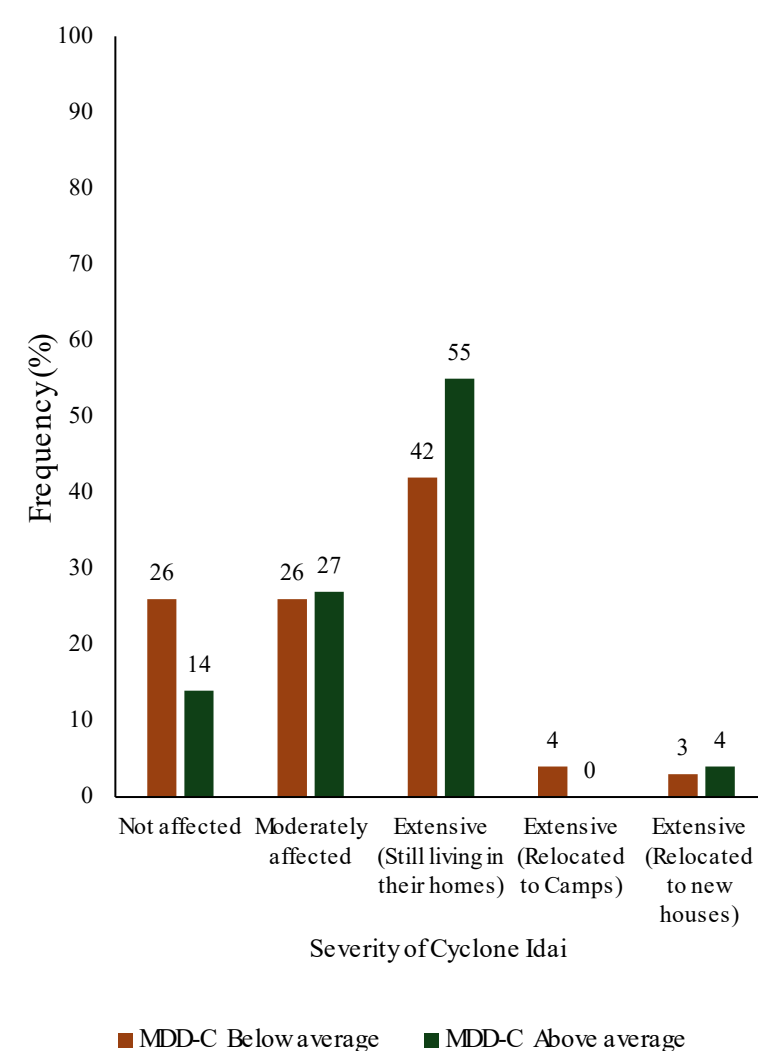
## Food Consumption Score



## Minimum Dietary Diversity for Women



## Minimum Dietary Diversity for Children



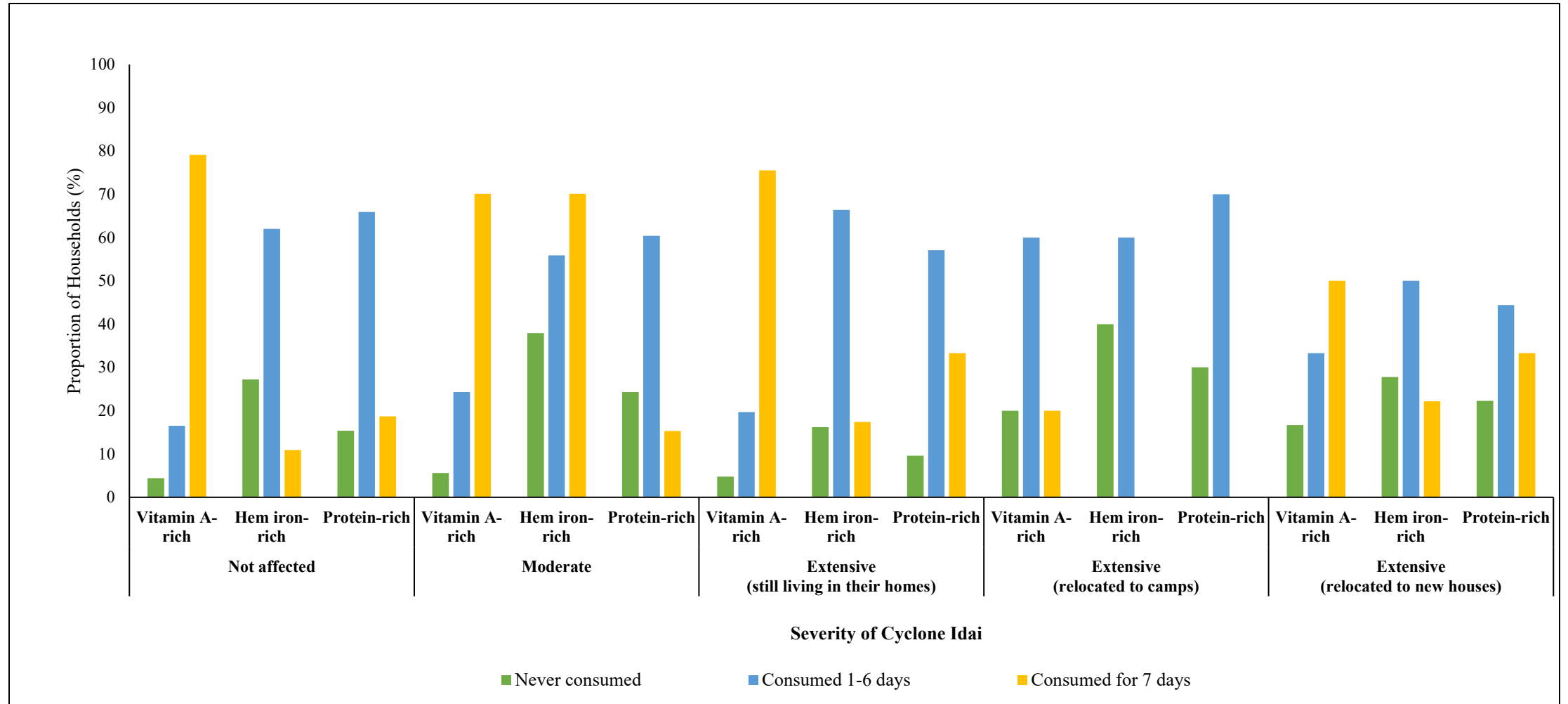


# Determinants Of Nutrition Outcomes

Variables	Nutrition Outcomes		
	HDDS	FCS	MDD-W
Age of household head	0.004	0.003	0.033
Marital status	0.145	0.093*	0.109
Sex of household head	-0.734*	-0.264	-0.593
Household size	0.067	-0.034	-0.057
Highest level of education	0.006	0.057	0.140
Type of settlement	-0.054	-0.087	0.699
Severity of Cyclone Idai	-0.315	-0.100	0.613
Adjusted R <sup>2</sup>	0.103	0.042	
R <sup>2</sup>	0.134	0.075	

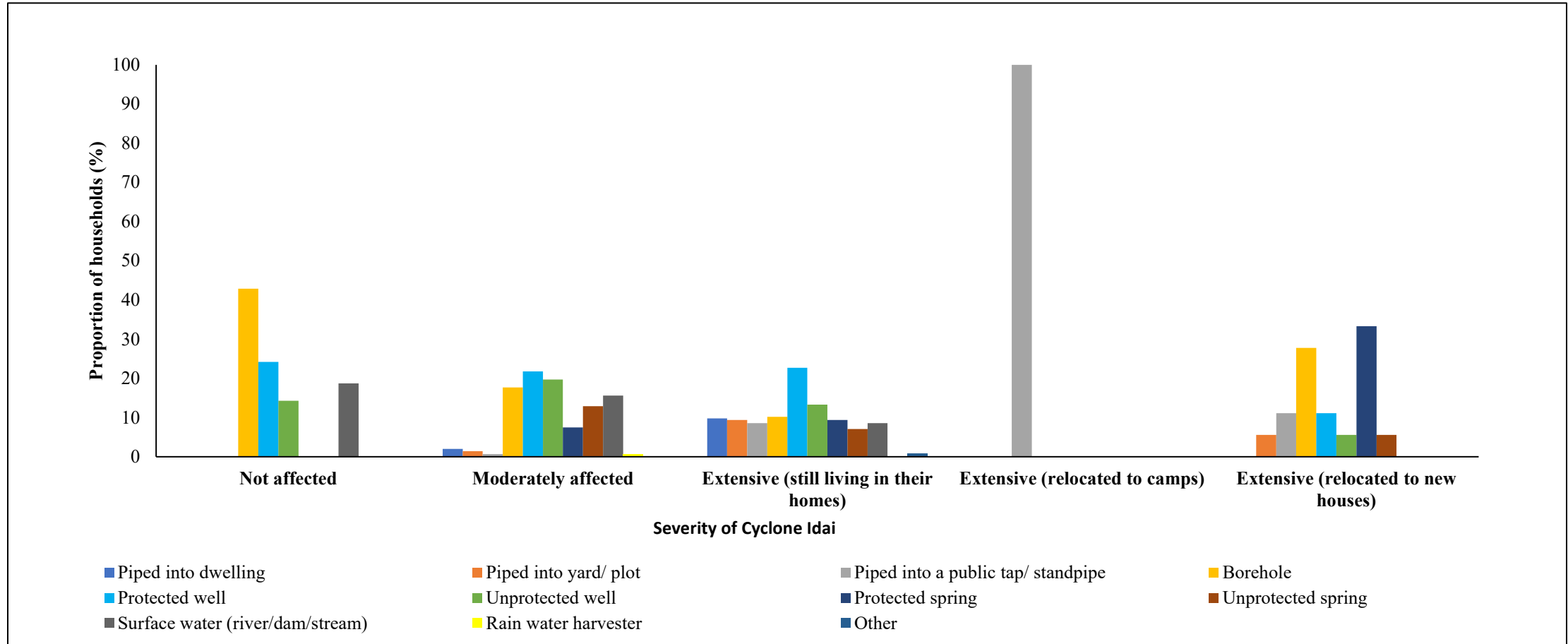


# Impact of Cyclone Idai on nutritional quality

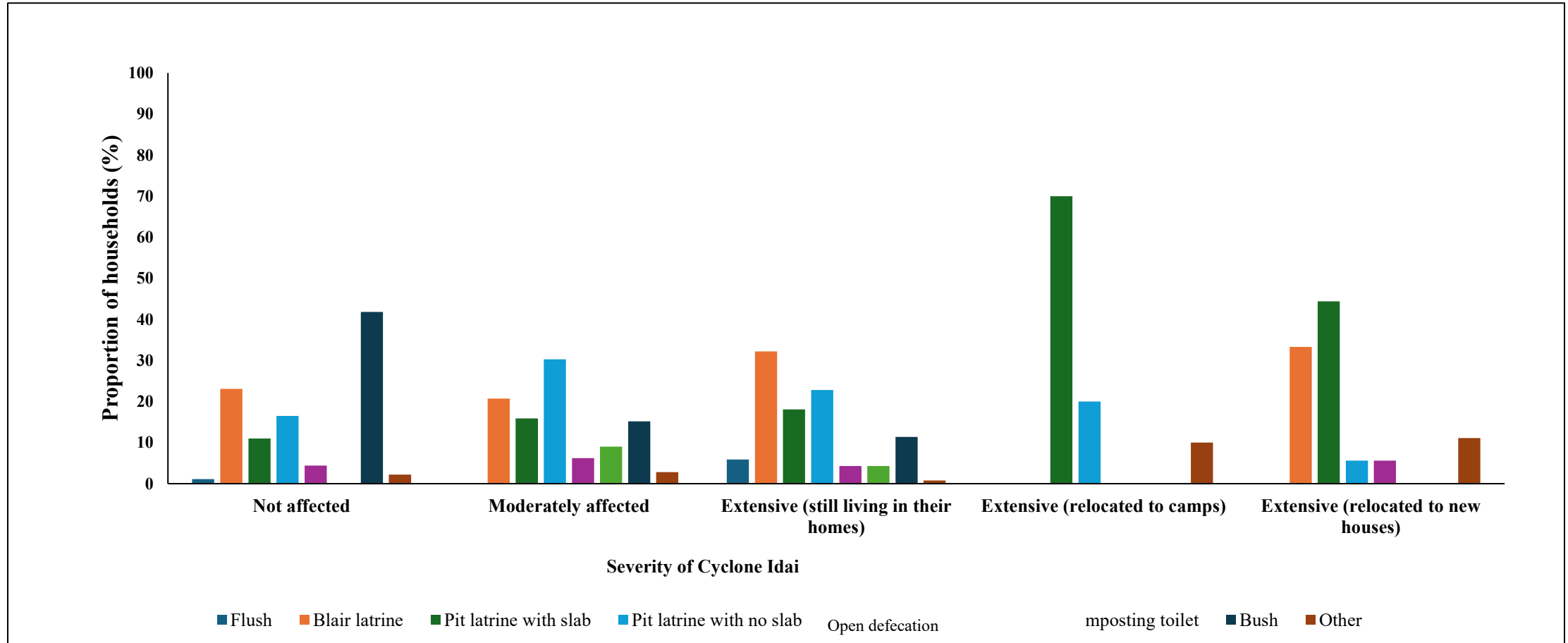




# Impact of Cyclone Idai on main water source

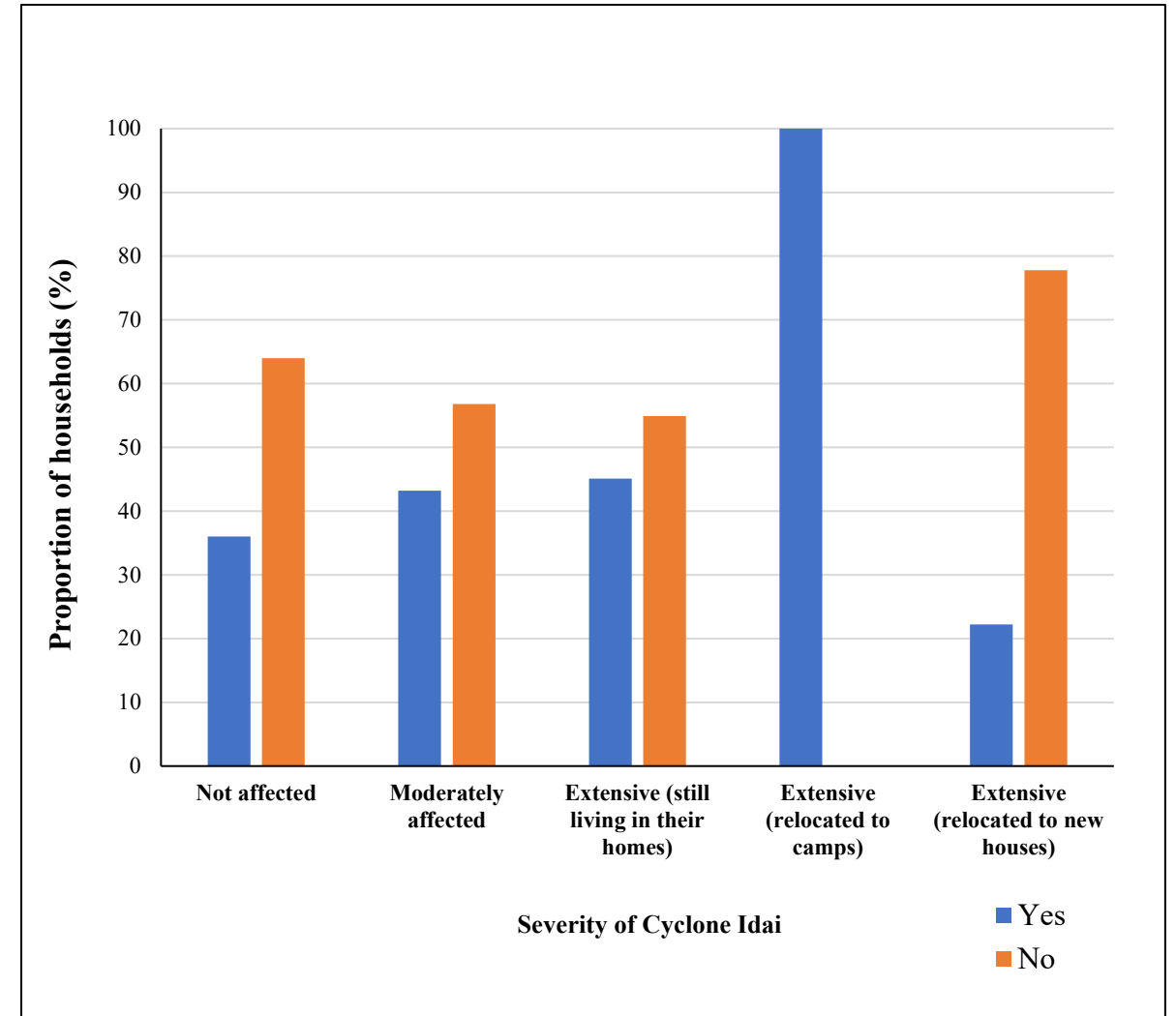
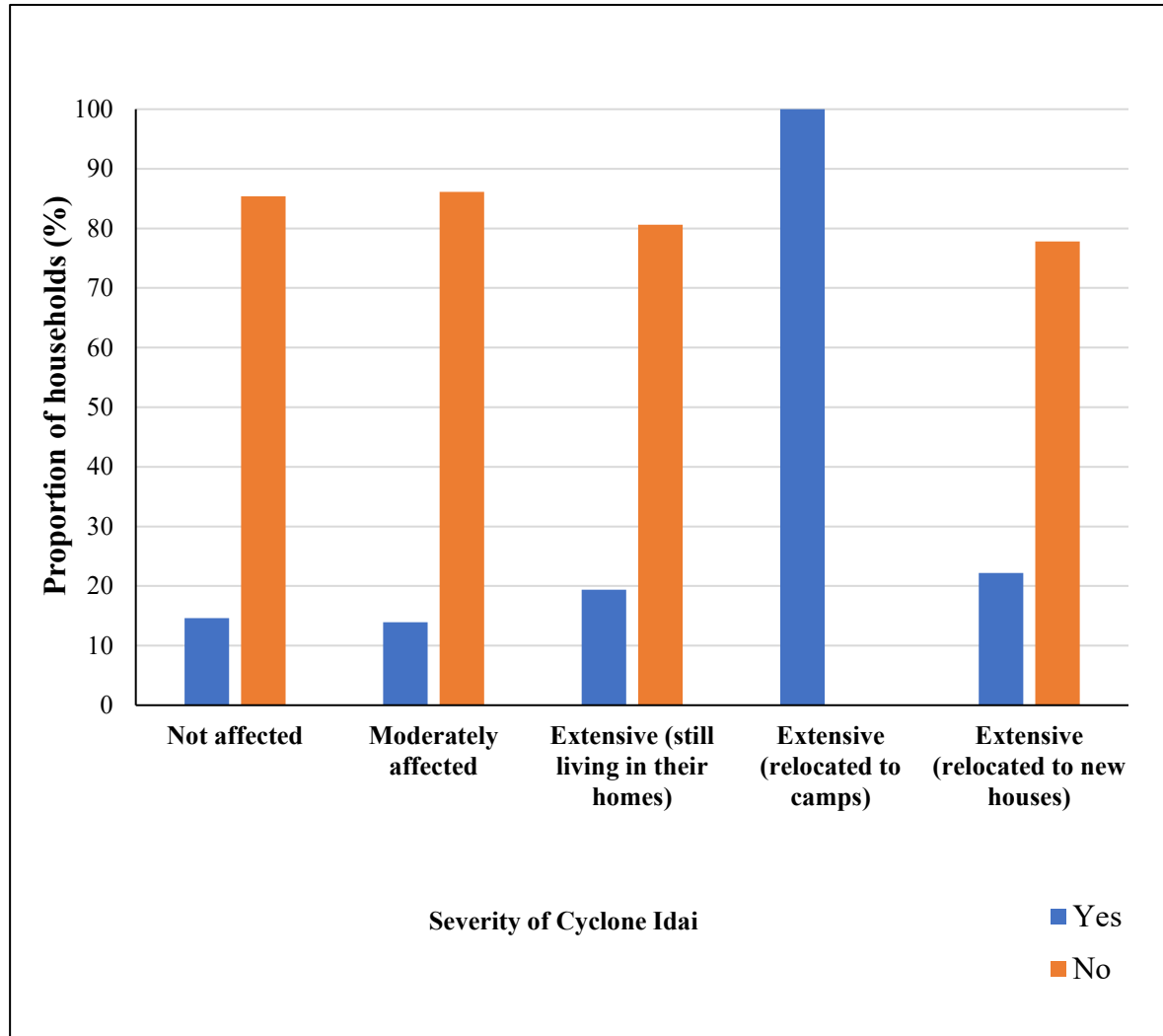


# Type of toilet facility

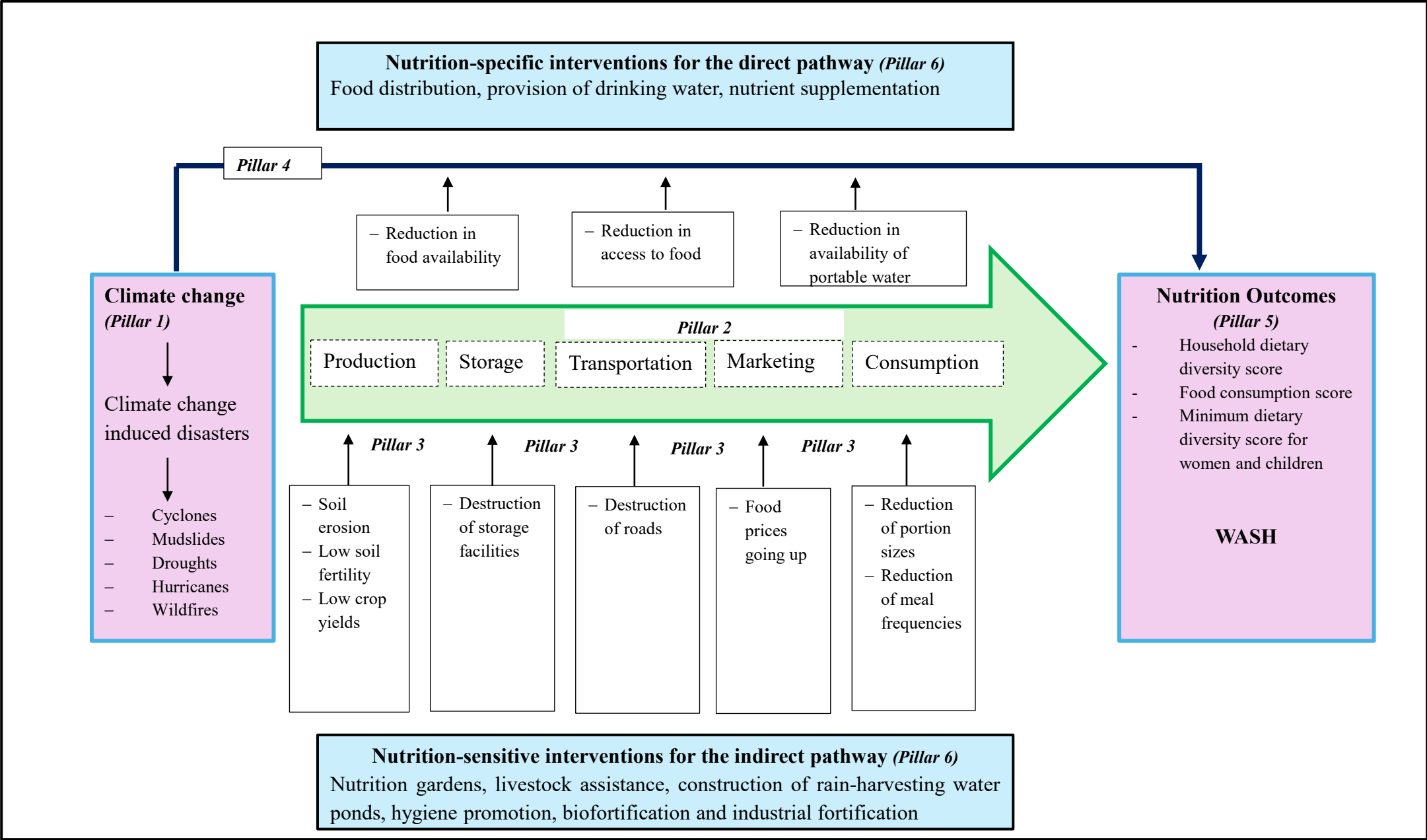




# Sharing of toilets and presence of a handwashing facility



Proposed conceptual framework to illustrate the complex interlinkage between climate induced natural disasters and nutrition outcomes.







# RECOMMENDATIONS AND CONCLUSION

- Evidence-based policies regarding composition of a food aid basket and targeting of beneficiaries
- High HDDS did not transform to adequate women and children dietary diversity
- WASH practices had greatly improved mainly in camps due to new structures built



A scenic landscape featuring a wide, shallow riverbed filled with numerous smooth, reddish-brown and grey rocks. The water is a murky, brownish color, flowing through the center of the rocky bed. The surrounding terrain is hilly and covered with sparse green vegetation and small trees. In the background, a range of blue-grey mountains stretches across the horizon under a pale, overcast sky. The overall scene conveys a sense of a natural, perhaps recently cleared or eroded, environment.

*Thank You*