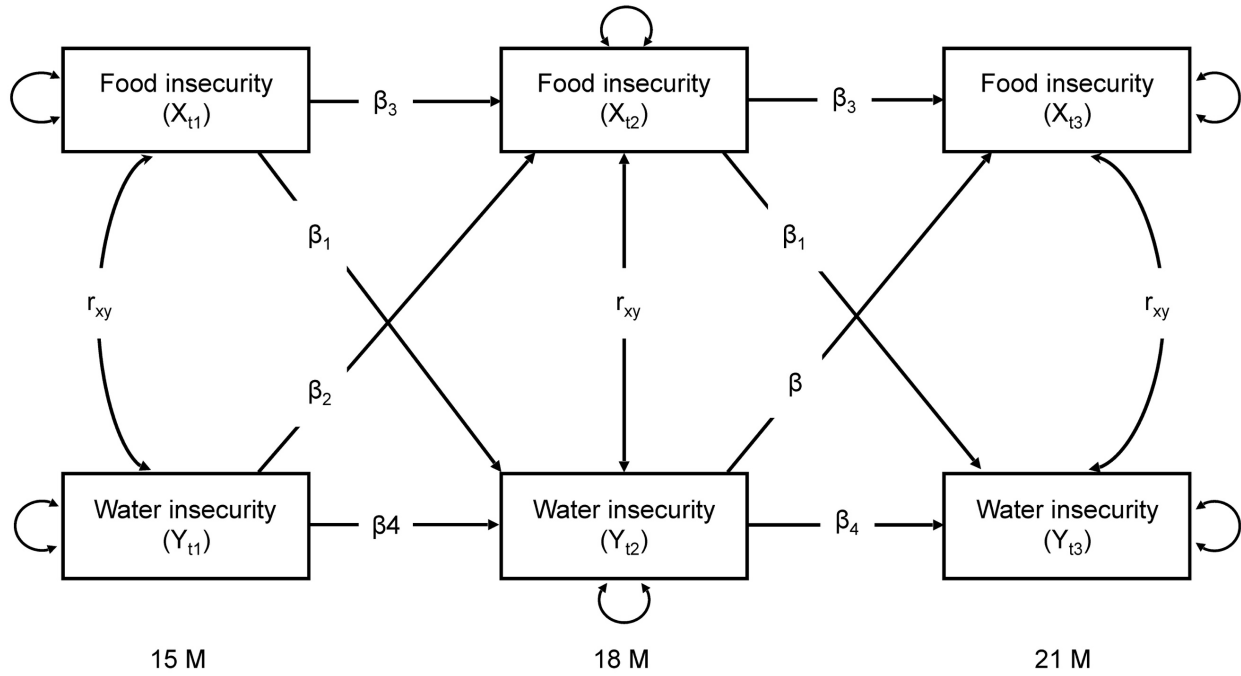**Figure 1.** Framework for a three-wave, cross-lagged panel model between food and water insecurity. β_1 and β_2 are the cross-lagged effects, or the effect of a construct on another measured construct at a later timepoint, whose combination with the autoregressive terms (β_3, β_4) enable the current state of each variable to act as a function of its past on other variables.

Supplementary Table 1. Sociodemographic characteristics of Pith Moromo and Pii Ngima participants included and excluded from the final analytic sample.

	Included (n=183)	Excluded (n=188)[†]	*p*-value
Age, mean(sd)	25.5 (4.7)	24.2 (5.1)	0.008
Married, %	92.9	88.2	0.130
HIV-infected, %	51.4	50.0	0.792
Household size, mean(sd)	7.5 (3.9)	4.3 (4.0)	<0.001
Household location, %			0.103
Peri-urban	21.9	16.0	
Urban	46.5	42.3	
Asset index, mean(sd)	0.18 (1.76)	-0.33 (1.56)	0.018
Baseline food insecurity score, mean(sd)	14.1 (7.0)	13.6 (7.1)	0.531
Baseline CES-D score, mean(sd)	18.8 (8.0)	18.0 (8.6)	0.364

[†] Two excluded participants had missing baseline data

Supplementary Table 2. A lagged linear regression model showing the standardized predictive effect of the interaction between food insecurity and water insecurity at 18 months, and HIV positive status on maternal depression symptomatology at 21 months postpartum using a maximum likelihood estimator (n=183).

	Model 1	Model 2	Model 3	Model 4
	β (95% CI)	β (95% CI)	β (95% CI)	β (95% CI)
Asset score	-1.26 (-2.46, -0.07)*	-1.23 (-2.41, -0.05)*	-1.27 (-2.45, -0.09)*	-1.08 (-2.23, 0.07)
Food insecurity	1.08 (-0.17, 2.33)	0.27 (-1.17, 1.71)	0.95 (-0.29, 2.20)	1.95 (-0.26, 4.16)
Water insecurity	0.21 (-1.04, 1.45)	-3.45 (-7.04, 0.14)	0.14 (-1.09, 1.37)	-1.05 (-6.33, 4.24)
Food * water insecurity		4.23 (0.32, 8.14)*		-0.67 (-6.57, 5.22)
HIV positive			2.22 (0.06, 4.38)*	5.43 (0.18, 10.69)*
HIV positive * food insecurity				-3.43 (-6.89,. 0.03)
HIV positive * water insecurity				-3.57 (-9.78, 2.63)
Food insecurity * water insecurity * HIV positive				6.76 (0.09, 13.44)*

*$p<0.05$; **$p<0.01$; ***$p<0.001$; all significance at 2-tailed *p*-value; 95% CI = 95% confidence interval; β represents the standardized amount of change in the outcome (CES-D scores) per standard deviation change in the predictor