Table A9.1. Multiple Logistic Regression Models of Moderate or Severe Household Hunger

Dependent: Moderate or Severe Household Hunger	Total (Pseudo R^2 = .07)		Northern Karamoja (Pseudo R^2 = .07)		Southern Karamoja (R^2 = .12)	
Independent Variables	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value	Odds ratio (95% CI)	p-value
Household Composition						
Number of prime-aged adults (15-49)	0.98 (0.91 - 1.06)	*0.63*	1.01 (0.91 - 1.12)	*0.81*	0.93 (0.83 - 1.04)	*0.21*
Number of elder dependents (50 or older)	1.43 (1.08 - 1.88)	*0.01**	1.08 (0.73 - 1.60)	*0.70*	1.70 (1.17 - 2.46)	*0.01***
Number of young dependents (0-14)	1.04 (0.99 - 1.09)	*0.13*	1.02 (0.95 - 1.10)	*0.53*	1.06 (1.00 - 1.13)	*0.07*
Age of head of HH	0.99 (0.98 - 1.00)	*0.02**	0.99 (0.97 - 1.01)	*0.19*	0.98 (0.97 - 1.00)	*0.02**
Sex of head of HH (Female)	0.80 (0.60 - 1.06)	*0.12*	0.72 (0.54 - 0.96)	*0.03**	1.02 (0.64 - 1.62)	*0.93*
Education level of head of HH (Primary vs. None)	1.00 (0.78 - 1.27)	*0.98*	0.99 (0.70 - 1.41)	*0.96*	1.07 (0.75 - 1.52)	*0.72*
Education level of head of HH (Secondary vs. None)	0.64 (0.41 - 1.02)	*0.06*	0.69 (0.38 - 1.24)	*0.21*	0.44 (0.24 - 0.82)	*0.01**
Education level of head of HH (Higher vs. None)	0.80 (0.39 - 1.63)	*0.54*	1.06 (0.34 - 3.34)	*0.91*	0.48 (0.23 - 0.99)	*0.05**
Household Consumption						
Living below the poverty line	0.93 (0.65 - 1.31)	*0.66*	1.03 (0.72 - 1.48)	*0.88*	0.73 (0.39 - 1.38)	*0.34*
Daily per capita food consumption (log)	1.28 (0.97 - 1.68)	*0.08*	1.73 (1.16 - 2.59)	*0.01***	0.88 (0.61 - 1.27)	*0.49*
Household Agricultural Status						
Raised crops in the last 12 months	1.85 (1.41 - 2.42)	*0.00***	1.05 (0.71 - 1.55)	*0.80*	3.45 (2.34 - 5.09)	*0.00***
Number of farmers in the household	0.76 (0.61 - 0.95)	*0.02**	0.74 (0.55 - 1.01)	*0.06*	0.86 (0.64 - 1.17)	*0.34*
Used at least 2 sustainable livestock practices	1.18 (0.84 - 1.67)	*0.34*	1.38 (0.75 - 2.54)	*0.30*	0.99 (0.69 - 1.43)	*0.96*
Used at least 2 sustainable crop practices	0.70 (0.53 - 0.93)	*0.01**	0.68 (0.43 - 1.08)	*0.10*	0.66 (0.47 - 0.93)	*0.02**
Used at least one sustainable NRM practice	0.80 (0.54 - 1.17)	*0.24*	0.79 (0.46 - 1.35)	*0.39*	0.84 (0.46 - 1.53)	*0.58*
Practiced value chain activities	0.87 (0.63 - 1.21)	*0.41*	1.38 (0.92 - 2.05)	*0.12*	0.54 (0.37 - 0.79)	*0.00***
Using improved storage practices	0.76 (0.54 - 1.07)	*0.12*	0.80 (0.45 - 1.4)	*0.43*	0.65 (0.44 - 0.95)	*0.03**
District [1]						
District: Kotido	2.24 (1.53 - 3.29)	*0.00***	2.51 (1.71 - 3.68)	*0.00***	N/A	-
District: Abim	3.51 (1.68 - 7.33)	*0.00***	3.18 (1.33 - 7.6)	*0.01**	N/A	-
District: Moroto	2.58 (1.07 - 6.22)	*0.04**	N/A	-	2.12 (0.79 - 5.7)	*0.13*
District: Napak	1.36 (0.92 - 2.01)	*0.12*	N/A	-	N/A	-
District: Nakapiripirit	1.19 (0.82 - 1.73)	*0.35*	N/A	-	0.88 (0.61 - 1.23)	*0.49*
District: Amudat	0.55 (0.31 - 0.96)	*0.04**	N/A	-	0.56 (0.32 - 0.96)	*0.05**
(Constant)	1.77 (0.69 - 4.55)	*0.23*	0.89 (0.24 - 3.30)	*0.86*	5.93 (1.56 - 22.6)	*0.01**
Number of households in final model	4,603		2,325		2,278	

[1] The reference district is Kaabong for the total sample and the Northern Karamoja models, and Napak for the Southern Karamoja model.

* p <.05

** p <.01

Table A9.2.. Multiple Logistic Regression Model of Moderate or Severe Household Hunger for Southern Karamoja, including interaction terms

Dependent: Moderate or Severe Household Hunger	Southern Karamoja ($R^2 = .12$)	
Independent Variables	Odds ratio (95% CI)	p-value
Household Composition		
Number of prime-aged adults (15-49)	0.94 (0.84 - 1.05)	0.24
Number of elder dependents (50 or older)	1.71 (1.18 - 2.46)	0.00**
Number of young dependents (0-14)	1.06 (1.00 - 1.12)	0.07
Age of head of HH	0.98 (0.97 - 1.00)	0.01*
Sex of head of HH (Female)	1.02 (0.65 - 1.62)	0.92
Education level of head of HH (Primary vs. None)	1.04 (0.72 - 1.50)	0.85
Education level of head of HH (Secondary vs. None)	0.39 (0.22 - 0.69)	0.00**
Education level of head of HH (Higher vs. None)	0.47 (0.22 - 0.98)	0.05*
Household Consumption		
Living below the poverty line	0.69 (0.37 - 1.30)	0.25
Daily per capita food consumption (log)	0.89 (0.62 - 1.29)	0.54
Household Agricultural Status		
Raised crops in the last 12 months	4.01 (2.45 - 6.58)	0.00**
Number of farmers in the household	0.72 (0.48 - 1.10)	0.13
Used at least 2 sustainable livestock practices	1.81 (0.70 - 4.66)	0.22
Used at least 2 sustainable crop practices	0.65 (0.46 - 0.93)	0.02*
Used at least one sustainable NRM practice	0.21 (0.03 - 1.48)	0.12
Practiced value chain activities	2.17 (1.01 - 4.66)	0.05*
Using improved storage practices	1.55 (0.51 - 4.65)	0.43
Agricultural Interaction Terms[1]		
Raised crops*Number of farmers	1.22 (0.78 - 1.93)	0.38
Raised crops*Sustainable livestock	0.52 (0.16 - 1.68)	0.27
Raised crops*Sustainable NRM	4.64 (0.62 - 34.7)	0.13
Raised crops*Value chain	0.22 (0.10 - 0.47)	0.00**
Raised crops*Improved storage	0.39 (0.13 - 1.17)	0.09
District [2]		
District: Moroto	2.3 (0.83 - 6.13)	0.11
District: Nakapiripirit	0.91 (0.62 - 1.32)	0.63
District: Amudat	0.56 (0.32 - 0.97)	0.05*
(Constant)	5.56 (1.30 - 23.7)	0.02*
Number of households in final model	2,278	

[1] The "Raised crops*Sustainable crop practices" interaction term is ommitted because of collinearity

[2] The reference district is Napak

* p <.05

** p <.01

Table A9.3.. Multiple Regression Models of Height for Age Z-score of Children under 5 Years of Age

Dependent: Height for Age Z-score	Total (R² = .05)		Northern Karamoja (R² = .06)		Southern Karamoja (R² = .05)	
Independent Variables	β	p-value	β	p-value	β	p-value
Child Characteristics						
Sex (Female)	0.18	*0.24*	0.06	*0.78*	0.38	*0.02**
Age in months	-0.01	*0.13*	-0.02	*0.09*	-0.01	*0.50*
Age in months squared	0.00	*0.79*	0.00	*0.36*	0.00	*0.28*
Sex*age interaction	0.00	*0.53*	0.00	*0.18*	0.00	*0.76*
Child had diarrhea in the last 2 weeks	-0.26	*0.02**	-0.27	*0.07*	-0.31	*0.02**
Household Composition						
Number of prime-aged adults (15-49)	0.01	*0.83*	-0.03	*0.40*	0.09	*0.03**
Number of elder dependents (50 or older)	0.17	*0.34*	0.21	*0.37*	0.09	*0.54*
Number of young dependents (5-14)	0.04	*0.31*	0.10	*0.05**	-0.05	*0.13*
Number of children (0-4)	0.04	*0.46*	0.02	*0.70*	0.04	*0.52*
Age of head of HH	-0.01	*0.25*	-0.02	*0.22*	0.00	*0.81*
Sex of head of HH (Female)	-0.24	*0.20*	-0.40	*0.13*	0.01	*0.93*
Education level of primary caretaker (Primary vs. None)	-0.39	*0.06*	-0.47	*0.07*	0.00	*1.00*
Education level of primary caretaker (Secondary vs. None)	0.30	*0.07*	0.29	*0.14*	-0.11	*0.66*
Education level of primary caretaker (Higher vs. None)	0.56	*0.00***	0.60	*0.00***	0.98	*0.10*
Household Socioeconomic Status						
Moderate or Severe Hunger	-0.17	*0.14*	-0.24	*0.09*	-0.06	*0.67*
Living below the poverty line	-0.25	*0.16*	-0.37	*0.09*	0.07	*0.68*
Daily per capita food consumption (log)	-0.05	*0.43*	0.02	*0.87*	-0.20	*0.03**
Household Water and Sanitation						
Improved source of drinking water	-0.08	*0.30*	0.03	*0.73*	-0.20	*0.08*
Water treatment prior to drinking	0.15	*0.22*	0.22	*0.20*	0.08	*0.49*
Improved, not shared sanitation facility	0.16	*0.20*	0.23	*0.13*	-0.05	*0.85*
Cleansing agent and water available at handwashing station	0.43	*0.08*	0.47	*0.06*	0.10	*0.74*
Household Agricultural Status						
Raised crops in the last 12 months	-0.09	*0.52*	0.02	*0.90*	-0.27	*0.03**
Used at least two sustainable crop practices (past 12 months)	0.01	*0.94*	-0.09	*0.55*	0.29	*0.10*
Used at least two sustainable livestock practices (past 12 months)	0.09	*0.46*	0.08	*0.61*	0.04	*0.80*
Used at least one sustainable NRM practice (past 12 months)	0.32	*0.02**	0.57	*0.00***	-0.05	*0.76*
Practiced the value chain activities	0.01	*0.96*	-0.06	*0.60*	0.08	*0.52*
Used improved storage practices (past 12 months)	0.00	*0.98*	0.03	*0.77*	-0.10	*0.43*
Number of farmers in the household	-0.13	*0.20*	-0.20	*0.14*	-0.01	*0.94*
District [1]						
District: Kotido	0.07	*0.64*	0.11	*0.47*	N/A	-
District: Abim	0.36	*0.05**	0.42	*0.03**	N/A	-
District: Moroto	-0.18	*0.12*	N/A	-	0.13	*0.28*
District: Napak	-0.31	*0.00***	N/A	-	N/A	-
District: Nakapiripirit	0.00	*0.98*	N/A	-	0.30	*0.00***
District: Amudat	0.28	*0.40*	N/A	-	0.50	*0.09*
(Constant)	-0.1	*0.84*	0.04	*0.95*	-0.76	*0.10*
Number of children (0-59 months) in final model	4,749		2,524		2,225	

[1] The reference district is Kaabong for the total sample and the Northern Karamoja models, and Napak for the Southern Karamoja model.

* p <.05

** p <.01