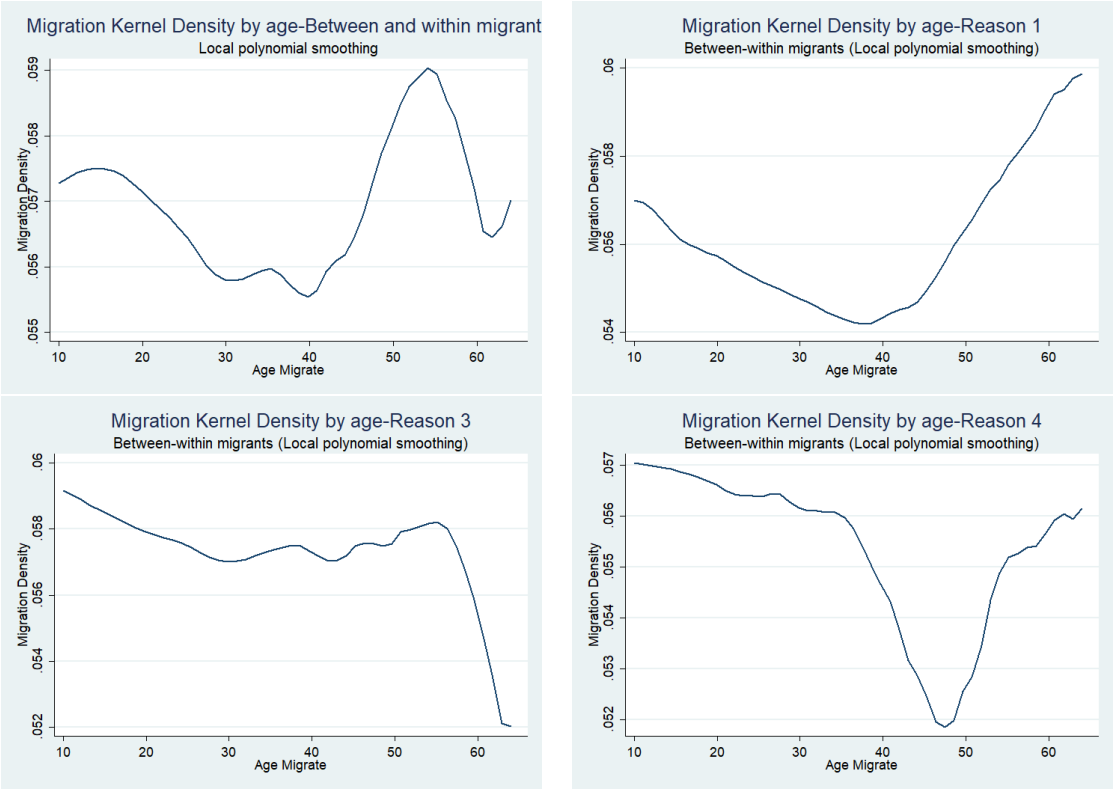
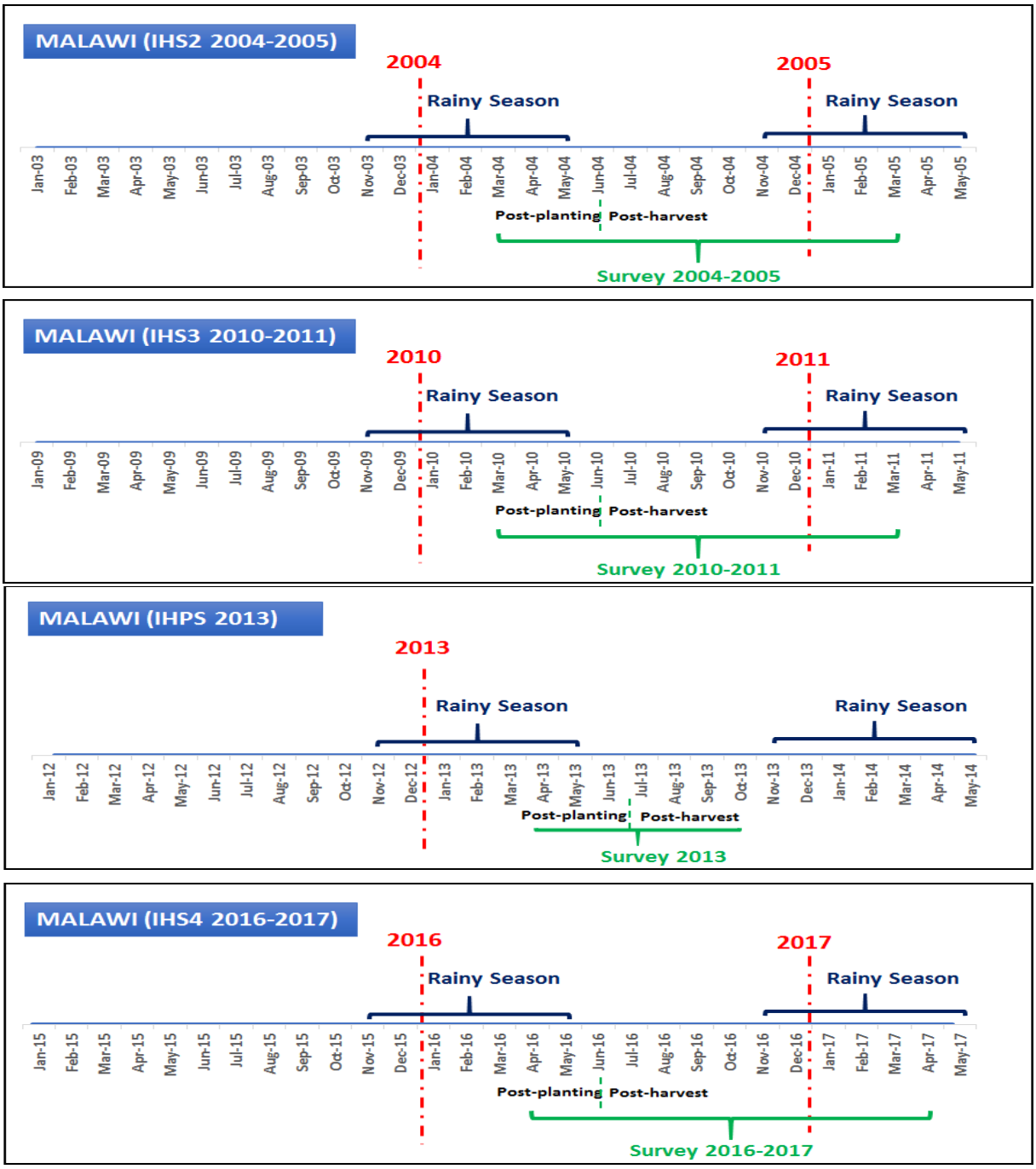
APPENDIX: Additional tables and figures

Figure 1: Additional graphs-Kernel density of migration by age
(Main reasons to migrate: 1 for work, 3 for marriage, 4 for family reasons)



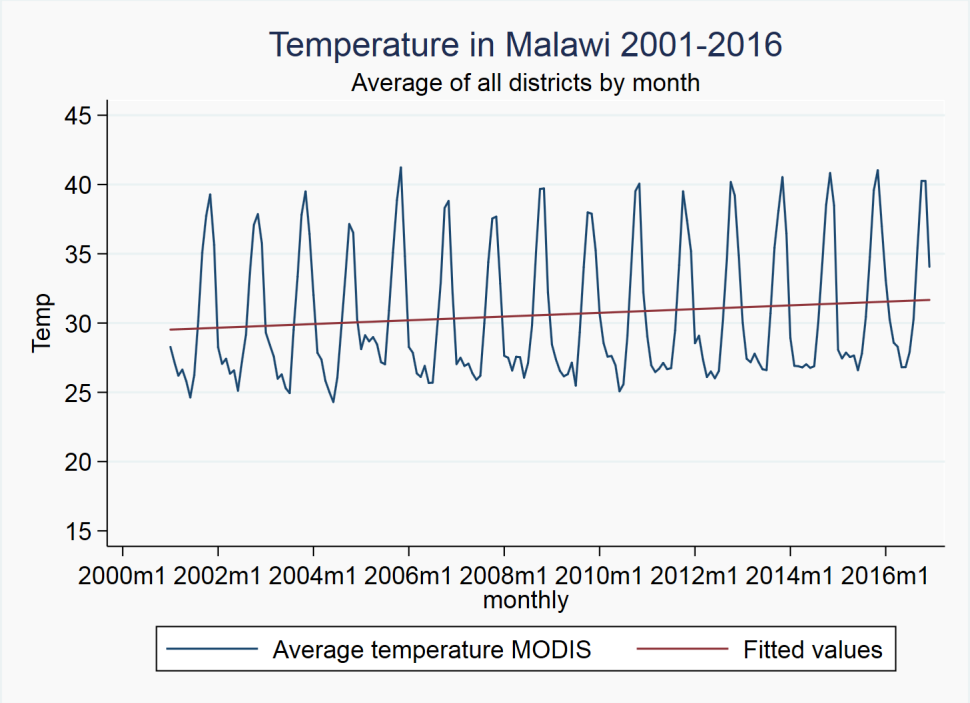
Source: Own construction based on IHS and IHPS wave reports MALAWI LSMS-ISA 2016-2017, MALAWI LSMS-ISA 2013, MALAWI LSMS-ISA 2010-2011 and MALAWI LSMS-ISA 2004-2005.

Figure 2: Time-line of Surveys and Rainy seasons. LSMS-ISA for MALAWI



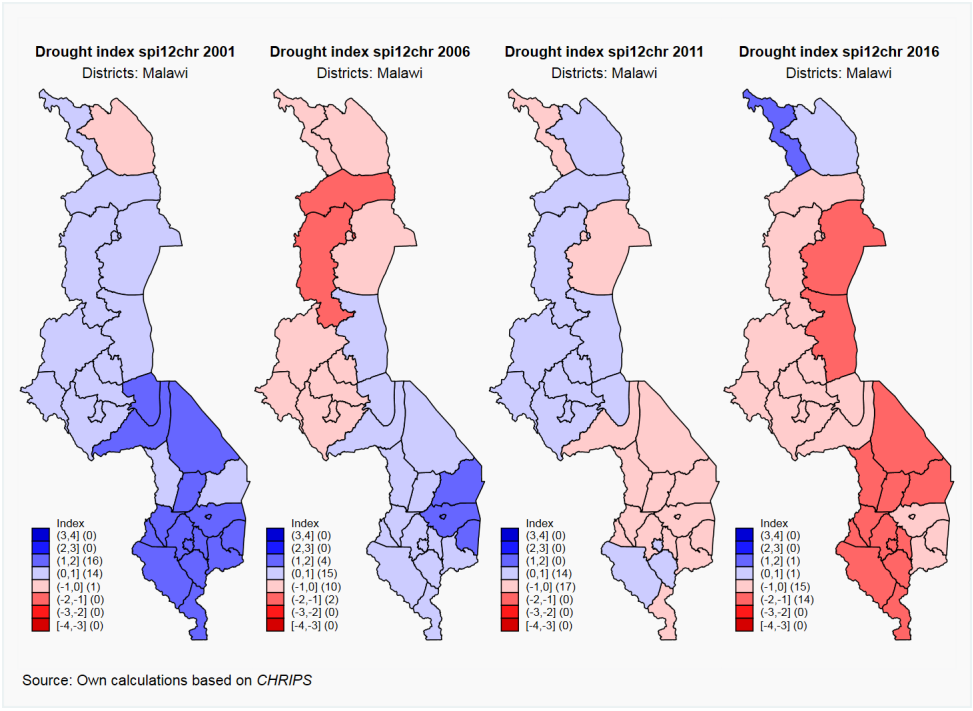
Source: Own construction based on IHS and IHPS wave reports MALAWI LSMS-ISA 2016-2017, MALAWI LSMS-ISA 2013, MALAWI LSMS-ISA 2010-2011 and MALAWI LSMS-ISA 2004-2005.

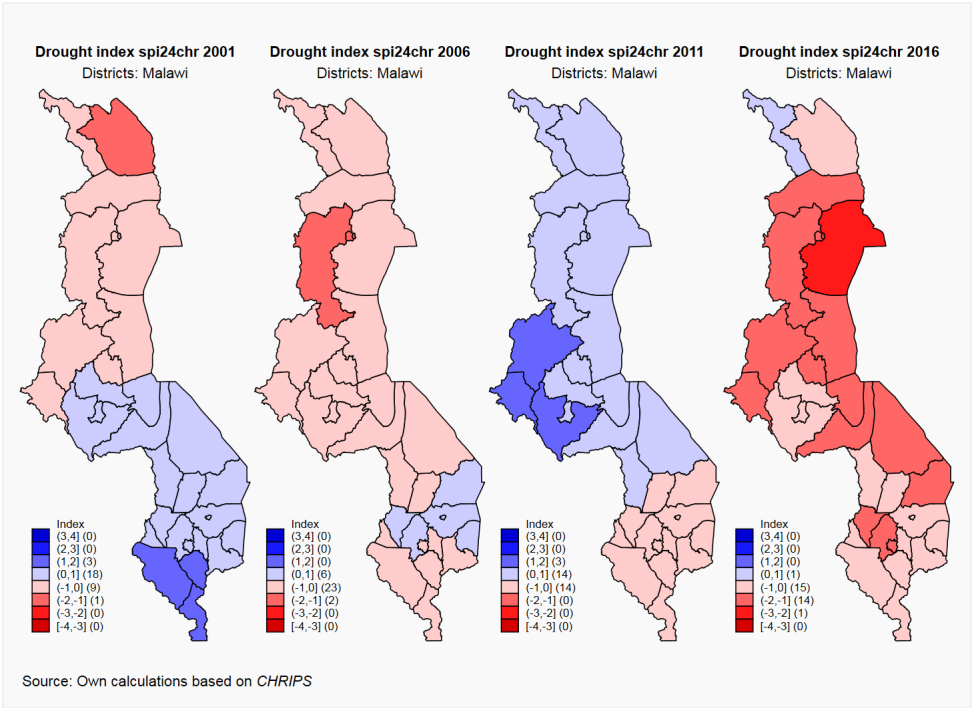
Figure 3: Average Temperature in Malawi



Source: created based on MODIS Land Surface Temperature Using images of the satellite MOD11A1.006 at 1km of resolution.

Figure 4: SPI-CHIRPS by district (scale 12-24)





Source: created based on the SPI-CHIRPS. The monthly scale gives the number of months over which water deficits accumulate.

Table 21: District Classification for the LSMS-ISA

District	By district of origin			By district of destination		
	Within Dist-MIG Obs.	Between Dist-MIG Obs.	Total Obs.	Within Dist-MIG Obs.	Between Dist-MIG Obs.	Total Obs.
1101 (CHITIPA)	290	713	1003	136	713	849
1102 (KARONGA)	367	754	1121	256	754	1010
1103 (NKHATABAY)	268	618	886	472	618	1090
1104 (RUMPHI)	378	501	879	562	501	1063
1105 (MZIMBA)	663	976	1639	473	976	1449
1107 (MZUZU CITY)	303	831	1134	1428	831	2259
1201 (KASUNGU)	520	767	1287	690	767	1457
1202 (NKHOTA KOTA)	254	513	767	481	513	994
1203 (NTCHISI)	151	517	668	341	517	858
1204 (DOWA)	324	605	929	464	605	1069
1205 (SALIMA)	258	243	501	305	243	548
1206 (LILONGWE)	617	982	1599	432	982	1414
1207 (MCHINJI)	220	409	629	273	409	682
1208 (DEDZA)	396	359	755	260	359	619
1209 (NTCHEU)	403	192	595	414	192	606
1210 (LILONGWE CITY)	587	1312	1899	1692	1312	3004
1301 (MANGOCHI)	383	420	803	394	420	814
1302 (MACHINGA)	302	386	688	251	386	637
1303 (ZOMBA)	348	450	798	314	450	764
1304 (CHIRADZULU)	262	285	547	258	285	543
1305 (BLANTYRE)	251	337	588	272	337	609
1306 (MWANZA)	86	133	219	256	133	389
1307 (THYOLO)	554	348	902	302	348	650
1308 (MULANJE)	485	471	956	382	471	853
1309 (PHALOMBE)	126	397	523	236	397	633
1310 (CHIKWAWA)	259	409	668	237	409	646
1311 (NSANJE)	179	409	588	178	409	587
1312 (BALAKA)	265	170	435	327	170	497
1313 (NENO)	36	58	94	236	58	294
1314 (ZOMBA CITY)	230	566	796	776	566	1342
1315 (BLANTYRE CITY)	973	566	1539	1172	566	1738
Total	10738	15697	26435	14270	15697	29967

Source: created based on the LSMS-ISA information.
Likoma Island is removed from the sample
District of origin is missing for LSMS-ISA Survey 2004-2005

Table 22: Most important events that happened in the EA-by survey

Event	2004-2005
SHARP CHANGE IN PRICES	451
DROUGHT	**392**
OTHER BAD (SPECIFY)	365
HUMAN EPIDEMIC DISEASE	238
LOSS OF KEY SOCIAL SERVICE (S)	124
FLOOD	85
MASSIVE JOB LAY-OFFS	78
LIVESTOCK DISEASE	43
CROP DISEASE/PESTS	38
NEW EMPLOYMENT OPPORTUNITIES	2
DEVELOPMENT PROJECT	1
NEW SCHOOL	1

Event	2010-2011
OTHER BAD (SPECIFY)	609
DROUGHT	**340**
HUMAN EPIDEMIC DISEASE	235
SHARP CHANGE IN PRICES	225
LIVESTOCK DISEASE	158
FLOOD	110
CROP DISEASE/PESTS	67
LOSS OF KEY SOCIAL SERVICE (S)	44
OTHER GOOD (SPECIFY)	34
MASSIVE JOB LAY-OFFS	30
POWER OUTAGE(S)	14
DEVELOPMENT PROJECT	12
IMPROVED TRANSPORTATION	7
NEW EMPLOYMENT OPPORTUNITIES	2
OFF-GRID ELECTRICITY	2
NEW HEALTH FACILITY	1

	2013
OTHER BAD (SPECIFY)	164
SHARP CHANGE IN PRICES	125
DROUGHT	**116**
HUMAN EPIDEMIC DISEASE	30
FLOOD	29
LIVESTOCK DISEASE	25
LOSS OF KEY SOCIAL SERVICE (S)	21
POWER OUTAGE(S)	11
CROP DISEASE/PESTS	9
DEVELOPMENT PROJECT	6
MASSIVE JOB LAY-OFFS	5
OTHER GOOD (SPECIFY)	5
OFF-GRID ELECTRICITY	4
NEW EMPLOYMENT OPPORTUNITIES	1
NEW ROAD	1

	2016-2017
DROUGHT	**544**
SHARP CHANGE IN PRICES	379
OTHER BAD (SPECIFY)	295
FLOOD	244
CROP DISEASE/PESTS	201
HUMAN EPIDEMIC DISEASE	159
OTHER GOOD (SPECIFY)	92
LOSS OF KEY SOCIAL SERVICE(S)	80
LIVESTOCK DISEASE	58
MASSIVE JOB LAY-OFFS	47
DEVELOPMENT PROJECT	11
POWEROUTAGE(S)	8
NEW SCHOOL	6
NEW EMPLOYMENT OPPORTUNITY	5
OFF-GRIDELECTRICITY	3
NEW ROAD	2
MAREP	1
NEW HEALTH FACILITY	1

Source: created based on the LSMS-ISA information, using the EA questionnaires. Each community chief of the EA reported the four most important events that happened in the community during the last five years.

Table 23: Percentage of transfers in the household by person in destination (by type of migrant)

	Obs.	Mean	SD	Min	Max
NoMIG.	67524	0.05	0.10	0	1
Between Dist-MIG.	7974	0.04	0.10	0	1
Within Dist-MIG.	8388	0.05	0.12	0	1
International MIG.	1484	0.08	0.15	0	1
Total	85370	0.05	0.10	0	1

Notes: The table includes only those for whom the information was reported. Only for survey 2004-2005 and 2010-2011.

Table 24: Percentage of no agricultural income (no agricultural wage and self-employment) in the household by person in destination (by type of migrant)

	Obs.	Mean	SD	Min	Max
NoMIG.	66329	0.17	0.30	0	1
Between Dist-MIG.	7531	0.46	0.43	0	1
Within Dist-MIG.	8055	0.30	0.38	0	1
International MIG.	1457	0.19	0.32	0	1
Total	83372	0.21	0.33	0	1

Notes: The table includes only those for whom the information was reported. Only for survey 2004-2005 and 2010-2011.

Table 25: Balance Tables for droughts at origin-district using SPI measure

	Sample: Between-district Migrants				Sample: Within-district Migrants			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Variable	No Drought	Drought	Diff	N	No Drought	Drought	Diff	N
Sex of the individual	0.493	0.497	0.000	127,044	0.559	0.583	0.000	182,466
	(0.500)	(0.500)	(0.000)		(0.496)	(0.493)	(0.000)	
Number of years of education	9.130	9.114	-0.000	127,044	7.718	7.628	-0.000	182,466
	(3.881)	(3.822)	(0.000)		(3.581)	(3.464)	(0.000)	
Dummy for at least primary education	0.660	0.663	0.000	127,044	0.513	0.509	0.000	182,466
	(0.474)	(0.473)	(0.000)		(0.500)	(0.500)	(0.000)	
Vincenty distance dist-origin to dist-destination	162.698	162.234	0.000	127,044	0.000	0.000	0.000	182,466
	(135.481)	(134.325)	(0.000)		(0.000)	(0.000)	(0.000)	
Percentage of kids less than 5 years old in the Household	0.169	0.172	-0.000	127,044	0.203	0.206	-0.000	182,466
	(0.162)	(0.162)	(0.000)		(0.170)	(0.171)	(0.000)	
Dummy for migrants coming from rural areas	0.753	0.777	-0.000	127,044	0.862	0.893	-0.000	182,466
	(0.431)	(0.416)	(0.000)		(0.345)	(0.309)	(0.000)	
Dummy for migrants coming from urban areas	0.246	0.223	-0.000	127,044	0.138	0.107	0.000	182,466
	(0.431)	(0.416)	(0.000)		(0.345)	(0.309)	(0.000)	
Size of the Household	5.024	5.065	-0.000	127,044	5.015	5.038	-0.000	182,466
	(2.240)	(2.250)	(0.000)		(2.247)	(2.276)	(0.000)	
Mean of monthly maximum rainfall during year(mm)-CHIRPS	16.966	15.702	-0.874	127,044	16.745	15.873	-0.710	182,466
	(4.213)	(3.837)	(0.227)***		(4.196)	(3.997)	(0.239)***	
Mean of monthly average rainfall during year(mm)-CHIRPS	2.915	2.627	-0.299	127,044	2.936	2.693	-0.284	182,466
	(0.519)	(0.578)	(0.037)***		(0.527)	(0.587)	(0.035)***	
Mean of monthly minimim rainfall during year(mm)-CHIRPS	0.000	0.000	-0.000	127,044	0.000	0.000	-0.000	182,466
	(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)	
Mean of monthly cumulative rainfall during year(mm)-CHIRPS	88.744	80.051	-9.160	127,044	89.379	82.029	-8.678	182,466
	(15.643)	(17.572)	(1.168)***		(15.923)	(17.847)	(1.085)***	
Anomalies-Mean of monthly average rainfall during year(mm)-CHIRPS	-0.029	-0.133	-0.109	127,044	-0.021	-0.109	-0.103	182,466
	(0.188)	(0.210)	(0.014)***		(0.191)	(0.213)	(0.013)***	
SD of monthly average rainfall during year(mm)-CHIRPS	3.619	3.275	-0.322	127,044	3.629	3.364	-0.269	182,466
	(0.607)	(0.767)	(0.058)***		(0.634)	(0.798)	(0.049)***	
SD of monthly cumulative rainfall during year(mm)-CHIRPS	110.193	100.116	-9.886	127,044	110.539	102.829	-8.114	182,466
	(18.104)	(23.415)	(1.850)***		(19.022)	(24.348)	(1.576)***	
Mean of monthly maximum temperature during year(degrees)-MODIS	34.021	34.925	0.166	112,928	33.718	34.406	0.120	162,192
	(2.969)	(3.005)	(0.191)		(3.196)	(3.248)	(0.223)	
Mean of monthly average temperature during year(degrees)-MODIS	30.121	30.799	0.093	112,928	29.902	30.394	0.049	162,192
	(2.277)	(2.396)	(0.140)		(2.455)	(2.543)	(0.161)	
Mean of monthly minimum temperature during year(degrees)-MODIS	25.588	25.977	-0.013	112,928	25.475	25.705	-0.067	162,192
	(1.641)	(1.809)	(0.102)		(1.755)	(1.855)	(0.112)	
Anomalies-Mean of monthly average temperature during year(degrees)-MODIS	-0.082	0.069	0.021	112,928	-0.131	-0.021	0.011	162,192
	(0.507)	(0.533)	(0.031)		(0.547)	(0.566)	(0.036)	
SD of monthly average temperature during year(degrees)-MODIS	4.667	5.108	-0.035	112,928	4.575	4.978	-0.035	162,192
	(1.464)	(1.174)	(0.090)		(1.515)	(1.332)	(0.104)	
Observations	93,680	33,364	127,044		132,997	49,469	182,466	

Notes: Includes dummies for year, district of origin, district of destination and for survey.
Drought dummy calculated using the SPI for 12 months scale; 1 for at least one month of drought ($SPI < -1$) during the growing season, 0 otherwise. Sample restricted to age 10-57 years old.
Standard errors clustered at origin-district (column 3). Standard deviations in parenthesis (column 1 and 2)

Table 26: Within District Migration - Women and Men migrating for work (reason 1)

	SPI-Cumulative drought for 12 months (Women)				SPI-Cumulative drought for 12 months (Men)			
	OLS Interactive FE		PROBIT-MG EFFECTS		OLS Interactive FE		PROBIT-MG EFFECTS	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
spi12-drought-agro (< -1)	-0.00481		0.000565		-0.00478		-0.00105	
	(0.0214)		(0.0227)		(0.0188)		(0.0193)	
spi12-drought-agro (< -1) x age (10-17)	0.00850		0.00698		-0.00406		-0.0232	
	(0.0342)		(0.0334)		(0.0310)		(0.0334)	
spi12-drought-agro (< -1) x age (18-27)	0.0164		0.00817		0.000892		-0.00204	
	(0.0273)		(0.0281)		(0.0182)		(0.0186)	
spi12-drought-agro (< -1) x age (28-37)	0.00134		-0.00320		0.0125		0.00897	
	(0.0248)		(0.0252)		(0.0142)		(0.0141)	
spi12-drought-agro (< -1) x age (38-47)	0.0442		0.0396		0.0122		0.00872	
	(0.0340)		(0.0307)		(0.0147)		(0.0157)	
spi12-drought-agro (< -2)		0.00499		0.00818		0.0242		0.0253
		(0.0590)		(0.0470)		(0.0229)		(0.0191)
spi12-drought-agro (< -2) x age (10-17)		-0.0408		-0.0413		-0.0422		-0.0639
		(0.0784)		(0.0723)		(0.0421)		(0.0530)
spi12-drought-agro (< -2) x age (18-27)		-0.0107		-0.0115		-0.00114		-0.000977
		(0.0571)		(0.0454)		(0.0278)		(0.0224)
spi12-drought-agro (< -2) x age (28-37)		-0.0215		-0.0270		0.00338		0.00115
		(0.0609)		(0.0500)		(0.0187)		(0.0147)
spi12-drought-agro (< -2) x age (38-47)		-0.0227		-0.0197		0.0331		0.0203
		(0.0641)		(0.0537)		(0.0275)		(0.0217)
Observations	6948	6948	6948	6948	22284	22284	22284	22284
R2	0.182	0.182			0.167	0.167		
$R2_a$	0.171	0.171			0.163	0.164		
$R2_p$			0.0244	0.0227			0.0211	0.0225
Ncluster	31	31	31	31	31	31	31	31
Pcorr	.	.	94.44	94.44	.	.	94.44	94.44

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of origin, district of destination and for survey, as well as controls for education and sex (in the case it is relevant).
spi12-drought-agro (< -1) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.
spi12-drought-agro (< -2) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.
Agricultural growing season from November to March. Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis.

Table 27: Within District Migration - Women and men migrating for marriage (reason 3)

	SPI-Cumulative drought for 12 months (Women)				SPI-Cumulative drought for 12 months (Men)			
	OLS Interactive FE		PROBIT-MG EFFECTS		OLS Interactive FE		PROBIT-MG EFFECTS	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
spi12-drought-agro (< -1)	-0.0358***		-0.0461***		-0.0271*		-0.0316*	
	(0.00977)		(0.0162)		(0.0145)		(0.0187)	
spi12-drought-agro (< -1) x age (10-17)	0.0305***		0.0416***		0.0390		0.0412	
	(0.00831)		(0.0143)		(0.0247)		(0.0264)	
spi12-drought-agro (< -1) x age (18-27)	0.0365***		0.0471***		0.0182		0.0208	
	(0.00958)		(0.0162)		(0.0158)		(0.0198)	
spi12-drought-agro (< -1) x age (28-37)	0.0300**		0.0399**		0.00386		0.00390	
	(0.0115)		(0.0173)		(0.0145)		(0.0184)	
spi12-drought-agro (< -1) x age (38-47)	0.0495**		0.0596***		0.00961		0.0118	
	(0.0186)		(0.0227)		(0.0152)		(0.0187)	
spi12-drought-agro (< -2)		-0.0343**		-0.0526		-0.0229		-0.0280
		(0.0126)		(0.0354)		(0.0372)		(0.0536)
spi12-drought-agro (< -2) x age (10-17)		0.0359*		0.0552		0.0807		0.0719
		(0.0197)		(0.0424)		(0.0686)		(0.0630)
spi12-drought-agro (< -2) x age (18-27)		0.0432**		0.0608		0.0428		0.0456
		(0.0169)		(0.0398)		(0.0352)		(0.0513)
spi12-drought-agro (< -2) x age (28-37)		0.0498***		0.0673*		-0.0105		-0.0178
		(0.0174)		(0.0360)		(0.0348)		(0.0532)
spi12-drought-agro (< -2) x age (38-47)		0.0585**		0.0753*		0.0398		0.0435
		(0.0215)		(0.0392)		(0.0449)		(0.0565)
Observations	65376	65376	65376	65376	20430	20430	20430	20430
R2	0.166	0.166			0.167	0.168		
$R2_a$	0.165	0.165			0.164	0.164		
$R2_p$			0.0174	0.0173			0.0248	0.0248
Ncluster	31	31	31	31	31	31	31	31
Pcorr	.	.	94.44	94.44	.	.	94.44	94.44

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of origin, district of destination and for survey, as well as controls for education and sex (in the case it is relevant).
spi12-drought-agro (< -1) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.
spi12-drought-agro (< -2) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.
Agricultural growing season from November to March. Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis.

Table 28: $Drought_o$ and $Drought_d$ together.
Women migrating for marriage (reason 3) Between District

	SPI-Cumulative drought for 12 months (WOMEN)			
	OLS Interactive FE		PROBIT-MG EFFECTS	
	(1)	(2)	(3)	(4)
spi12-drought-agro (< −1) dist-o	-0.0253***		-0.0139	
	(0.00688)		(0.0152)	
spi12-drought-agro (< −1) x age (10-17) dist-o	0.0324**		0.0212	
	(0.0128)		(0.0180)	
spi12-drought-agro (< −1) x age (18-27) dist-o	0.0271***		0.0183	
	(0.00699)		(0.0133)	
spi12-drought-agro (< −1) x age (28-37) dist-o	0.0466***		0.0386**	
	(0.0128)		(0.0173)	
spi12-drought-agro (< −1) x age (38-47) dist-o	0.00839		0.000899	
	(0.0207)		(0.0260)	
spi12-drought-agro (< −1) dist-d	-0.0300		-0.0445**	
	(0.0191)		(0.0218)	
spi12-drought-agro (< −1) x age (10-17) dist-d	0.0193		0.0311	
	(0.0220)		(0.0261)	
spi12-drought-agro (< −1) x age (18-27) dist-d	0.0273		0.0427*	
	(0.0216)		(0.0245)	
spi12-drought-agro (< −1) x age (28-37) dist-d	0.0261		0.0399*	
	(0.0213)		(0.0242)	
spi12-drought-agro (< −1) x age (38-47) dist-d	0.0457*		0.0604**	
	(0.0238)		(0.0277)	
spi12-drought-agro (< −2) dist-o		0.0682		0.0134
		(0.0829)		(0.0507)
spi12-drought-agro (< −2) x age (10-17) dist-o		-0.115		-0.0268
		(0.0773)		(0.0487)
spi12-drought-agro (< −2) x age (18-27) dist-o		-0.0651		-0.0117
		(0.0776)		(0.0470)
spi12-drought-agro (< −2) x age (28-37) dist-o		-0.0672		-0.0112
		(0.0748)		(0.0450)
spi12-drought-agro (< −2) x age (38-47) dist-o		-0.0780		-0.00737
		(0.0656)		(0.0474)
spi12-drought-agro (< −2) dist-d		-0.0201		-0.0484
		(0.0442)		(0.0309)
spi12-drought-agro (< −2) x age (10-17) dist-d		0.0313		0.0494
		(0.0468)		(0.0334)
spi12-drought-agro (< −2) x age (18-27) dist-d		0.0162		0.0469*
		(0.0404)		(0.0277)
spi12-drought-agro (< −2) x age (28-37) dist-d		0.0315		0.0603*
		(0.0483)		(0.0323)
spi12-drought-agro (< −2) x age (38-47) dist-d		0.0214		0.0378
		(0.0440)		(0.0339)
Observations	28728	28728	28728	28728
R2	0.175	0.175		
$R2_a$	0.172	0.172		
$R2_p$			0.0203	0.0194
Ncluster	31	31	31	31
Pcorr	.	.	94.44	94.44

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of origin, district of destination and for survey, as well as controls for education and sex (in the case it is relevant).
spi12-drought-agro (< −1) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.
spi12-drought-agro (< −2) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.
Agricultural growing season from November to March. Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis.

Table 29: Adding $dist_d \times year$ fixed effects
Between and Within District Migration - Women migrating for marriage (reason 3)

	SPI-Cumulative drought for 12 months			
	OLS Interactive FE		PROBIT-MG EFFECTS	
	(1)	(2)	(3)	(4)
spi12-drought-agro(< -1)	-0.0297**		-0.0430**	
	(0.0112)		(0.0168)	
spi12-drought-agro(< -1) x age(10-17)	0.0294***		0.0434***	
	(0.00937)		(0.0145)	
spi12-drought-agro(< -1) x age(18-27)	0.0353***		0.0486***	
	(0.0106)		(0.0164)	
spi12-drought-agro(< -1) x age(28-37)	0.0386***		0.0527***	
	(0.0113)		(0.0166)	
spi12-drought-agro(< -1) x age(38-47)	0.0384**		0.0525***	
	(0.0165)		(0.0202)	
spi12-drought-agro(< -2)		-0.0288		-0.0428
		(0.0222)		(0.0310)
spi12-drought-agro(< -2) x age(10-17)		0.0294		0.0452
		(0.0208)		(0.0302)
spi12-drought-agro(< -2) x age(18-27)		0.0370		0.0501
		(0.0223)		(0.0317)
spi12-drought-agro(< -2) x age(28-37)		0.0423*		0.0551*
		(0.0211)		(0.0286)
spi12-drought-agro(< -2) x age(38-47)		0.0423		0.0556*
		(0.0258)		(0.0320)
Observations	94104	94104	93374	93374
R2	0.155	0.155		
$R2_a$	0.154	0.154		
$R2_p$			0.0299	0.0298
Ncluster	31	31	31	31
Pcorr	.	.	94.40	94.40

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of origin, district of destination, for survey and district of destination × year, as well as controls for education and sex (in the case it is relevant).
spi12-drought-agro (< -1) *is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.*
spi12-drought-agro (< -2) *is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.*
Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis.

Table 30: Household interactions:
Including control for whether household head and partner migrated together
Between and Within District Migration - Women migrating for marriage (reason 3)

	SPI-Cumulative drought for 12 months			
	OLS Interactive FE		PROBIT-MG EFFECTS	
	(1)	(2)	(3)	(4)
spi12-drought-agro (< -1)	-0.0330***		-0.0484***	
	(0.0102)		(0.0163)	
spi12-drought-agro (< -1) x age (10-17)	0.0282***		0.0436***	
	(0.00922)		(0.0144)	
spi12-drought-agro (< -1) x age (18-27)	0.0362***		0.0508***	
	(0.0103)		(0.0164)	
spi12-drought-agro (< -1) x age (28-37)	0.0372***		0.0529***	
	(0.0113)		(0.0168)	
spi12-drought-agro (< -1) x age (38-47)	0.0410**		0.0573***	
	(0.0176)		(0.0217)	
spi12-drought-agro (< -1)-couple HH mig	0.00908		0.0306	
	(0.0403)		(0.0444)	
spi12-drought-agro (< -1) x age (10-17)-couple HH mig	0.0406		0.0239	
	(0.0458)		(0.0461)	
spi12-drought-agro (< -1) x age (18-27)-couple HH mig	0.0000994		-0.0154	
	(0.0466)		(0.0498)	
spi12-drought-agro (< -1) x age (28-37)-couple HH mig	0.0152		-0.00465	
	(0.0445)		(0.0482)	
spi12-drought-agro (< -1) x age (38-47)-couple HH mig	-0.00448		-0.0240	
	(0.0473)		(0.0483)	
spi12-drought-agro (< -2)		-0.0386***		-0.0711**
		(0.0138)		(0.0343)
spi12-drought-agro (< -2) x age (10-17)		0.0333		0.0668
		(0.0201)		(0.0414)
spi12-drought-agro (< -2) x age (18-27)		0.0432**		0.0744*
		(0.0168)		(0.0382)
spi12-drought-agro (< -2) x age (28-37)		0.0523***		0.0835**
		(0.0179)		(0.0353)
spi12-drought-agro (< -2) x age (38-47)		0.0536**		0.0867**
		(0.0224)		(0.0387)
spi12-drought-agro (< -2)-couple HH mig		0.170		0.155**
		(0.173)		(0.0785)
spi12-drought-agro (< -2) x age (10-17)-couple HH mig		-0.153		-0.127
		(0.193)		(0.102)
spi12-drought-agro (< -2) x age (18-27)-couple HH mig		-0.120		-0.115
		(0.180)		(0.0802)
spi12-drought-agro (< -2) x age (28-37)-couple HH mig		-0.155		-0.139*
		(0.168)		(0.0770)
spi12-drought-agro (< -2) x age (38-47)-couple HH mig		-0.153		-0.145**
		(0.157)		(0.0590)
Observations	94104	94104	94104	94104
R2	0.148	0.148		
$R2_a$	0.147	0.147		
$R2_p$			0.0125	0.0123
Ncluster	31	31	31	31
Pcorr	.	.	94.44	94.44

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of origin, district of destination and for survey.
spi12-drought-agro (< -1) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.
spi12-drought-agro (< -2) is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.
Agricultural growing season from November to March. Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis. The "couple HH mig" variable is a dummy when the couple (household head and partner) of the household migrated together to the same district in the same year.

Table 31: Multinomial Logit: No migrants and Between-Within Migrants - Women migrating for marriage (reason 3)

a) Multinomial Logit - Relative Risk Ratio to baseline (No migrate)

	1	2	1	2
	MLOGIT SPI		MLOGIT SPI Ext	
	Between	Within	Between	Within
	(1)	(2)	(3)	(4)
spi12-drought-agro (< -1)	0.416	0.406**		
	(0.278)	(0.154)		
spi12-drought-agro (< -1) x age (10-17)	2.514	2.422**		
	(1.685)	(0.913)		
spi12-drought-agro (< -1) x age (18-27)	2.503	2.504**		
	(1.532)	(0.972)		
spi12-drought-agro (< -1) x age (28-37)	3.806**	2.068*		
	(2.255)	(0.800)		
spi12-drought-agro (< -1) x age (38-47)	2.193	2.809**		
	(1.503)	(1.331)		
spi12-drought-agro (< -2)			0.887	0.466
			(0.855)	(0.394)
spi12-drought-agro (< -2) x age (10-17)			1.127	2.215
			(1.122)	(1.973)
spi12-drought-agro (< -2) x age (18-27)			1.205	2.310
			(1.138)	(2.241)
spi12-drought-agro (< -2) x age (28-37)			1.397	2.827
			(1.289)	(2.720)
spi12-drought-agro (< -2) x age (38-47)			1.677	3.959
			(1.505)	(3.875)
Observations	495094		495094	
$r2_p$	0.144		0.144	
Ncluster	31		31	

Exponentiated coefficients; Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Includes dummies for year, district of destination, as well as controls for education and sex (in the case it is relevant). Dummies for district of origin and survey were excluded as they generated a problem of convergence in the likelihood of the Multinomial Logit. Although the results could be compared with Table **??**, *caution has to be taken as the Multinomial Logit does not include the fixed effects mentioned before. Also, the table here compares the within and between migrants (excluding the migrants for other reasons different than reason 3) with all the no migrants.*
*spi*12*-drought-agro* (< -1) *is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -1 during at least one month of the agricultural growing season.*
*spi*12*-drought-agro* (< -2) *is a dummy equal to one if the SPI index (accumulated over 12 months) takes values below -2 during at least one month of the agricultural growing season.*
Agricultural growing season from November to March. Baseline category of age: 48-57. Age<10 and Age>57 are excluded. Distance or Vicenty-distance calculated using geodesic distances between a pair of points on the surface of the Earth. Standard errors clustered at origin-district. Standard deviations in parenthesis.

b) Marginal Effects-Multinomial Logit (from previous table)

	MLOGIT-MG EFFECTS	MLOGIT-MG EFFECTS
	(1)	(2)
0-No Mig	0.00906**	0.00581
	(0.00360)	(0.00615)
1-Between	-0.00262	-0.000340
	(0.00213)	(0.00291)
2-Within	-0.00644**	-0.00547
	(0.00272)	(0.00608)
spi12-drought-agro (< −1) x age (10-17)		
0-No Mig	-0.00907***	
	(0.00342)	
1-Between	0.00275	
	(0.00216)	
2-Within	0.00632**	
	(0.00271)	
spi12-drought-agro (< −1) x age (18-27)		
0-No Mig	-0.00930***	
	(0.00353)	
1-Between	0.00274	
	(0.00197)	
2-Within	0.00656**	
	(0.00278)	
spi12-drought-agro (< −1) x age (28-37)		
0-No Mig	-0.00918***	
	(0.00344)	
1-Between	0.00401**	
	(0.00197)	
2-Within	0.00517*	
	(0.00277)	
spi12-drought-agro (< −1) x age (38-47)		
0-No Mig	-0.00972**	
	(0.00411)	
1-Between	0.00234	
	(0.00215)	
2-Within	0.00738**	
	(0.00340)	
spi12-drought-agro (< −2) x age (10-17)		
0-No Mig		-0.00604
		(0.00589)
1-Between		0.000339
		(0.00302)
2-Within		0.00570
		(0.00640)
spi12-drought-agro (< −2) x age (18-27)		
0-No Mig		-0.00654
		(0.00692)
1-Between		0.000541
		(0.00286)
2-Within		0.00600
		(0.00696)
spi12-drought-agro (< −2) x age (28-37)		
0-No Mig		-0.00842
		(0.00667)
1-Between		0.000980
		(0.00280)
2-Within		0.00744
		(0.00691)
spi12-drought-agro (< −2) x age (38-47)		
0-No Mig		-0.0114
		(0.00713)
1-Between		0.00152
		(0.00272)
2-Within		0.00985
		(0.00702)
Observations	495094	495094
Ncluster	31	31

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$