Supplementary Material

October 15, 2018

Table A1: Long-run Effects of Weather on Different Sources of Income

	Total income	Agricultural income	Agricultural wage	Non-farm wage	Livestock	Business
	(1)	(2)	(3)	(4)	(5)	(6)
Rainfall Shock	0.790***	1.455***	-0.680*	-1.113**	0.656	0.249
	(0.197)	(0.441)	(0.372)	(0.460)	(0.587)	(0.364)
Historical monsoon rainfall SD*Shock	-0.00449***	-0.00845***	0.00549***	0.00456*	-0.0126***	-0.00288
	(0.00101)	(0.00226)	(0.00191)	(0.00236)	(0.00301)	(0.00187)
Historical monsoon rainfall SD (20-year average)	0.000696*	0.000585	-0.00221***	-0.000808	-0.00109	-0.00210***
	(0.000404)	(0.000905)	(0.000763)	(0.000944)	(0.00120)	(0.000748)
Historical monsoon rainfall SD*Shock*1981	0.00105	0.000792	-0.00116	0.00412**	0.0106***	0.000812
	(0.000842)	(0.00189)	(0.00159)	(0.00196)	(0.00251)	(0.00156)
Historical monsoon rainfall SD*Shock*1999	0.00110	0.00214	-0.00499***	0.00187	0.00265	-0.00443**
	(0.00100)	(0.00224)	(0.00189)	(0.00234)	(0.00298)	(0.00185)
Historical monsoon rainfall (20-year average)	9.47e-05	0.000484**	0.000233	0.000291	-0.000327	0.000337*
	(9.98e-05)	(0.000223)	(0.000188)	(0.000233)	(0.000297)	(0.000185)
Year=1981	0.154***	-0.120	-0.0773	-0.481***	1.036***	2.787***
	(0.0551)	(0.123)	(0.104)	(0.129)	(0.164)	(0.102)
Year=1999	0.0323	-0.959***	0.494***	0.411**	0.279	0.393***
	(0.0692)	(0.155)	(0.131)	(0.162)	(0.206)	(0.128)
Observations	5,942	5,942	5,942	5,942	5,942	5,942
R-squared	0.168	0.230	0.206	0.097	0.124	0.258
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable: Log income measured in rupees

Note: *** p<0.01, ** p<0.05, * p<0.1; all monetary units are in 1982 rupees. Coefficients are estimated using seemingly unrelated regressions as dependent variables are correlated. Rainfall shock = log (contemporaneous total monsoon rainfall)-log(20-year average total monsoon rainfall). Control variables include June temperature, historical June temperature, household size, household head's years of education and age, land size, village population, and distance to a city. Historical weather variables are defined as 20-year average before the contemporaneous year. All coefficients are based on weighted analysis using the original sampling weight.

Table A2: Relationship between Historical Monsoon Rainfall SD and the Share of Wage Income

	Share of wage income (both agricultural and non-farm)
	(1)
Historical monsoon rainfall SD (20-year average)	0.000731***
	(0.000142)
Historical monsoon rainfall (20-year average)	-0.000476***
	(0.000135)
June Temprature	0.0938***
	(0.00437)
Historical June Temprature	0.367***
	(0.0266)
Household size	0.00484***
	(0.00175)
Household head education	-0.0163***
	(0.00276)
Household head age	-0.00192***
	(0.000332)
Land area	-0.0158***
	(0.000932)
Observations	5,942
R-squared	0.285
Village fixed effects	Yes

Note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Historical weather variables are defined as 20-year average before the contemporaneous year. All coefficients are based on weighted analysis using the original sampling weight.

Table A3: Long-run Effects of Weather on Different Sources of Income - Alternative Shock Definition I

	Dependent variable: Log income measured in rupees			
	Total income	Agricultural income	Agricultural wage	Non-farm wage
	(1)	(2)	(3)	(4)
Rainfall Shock	0.806***	1.757***	-0.795***	-1.305***
	(0.143)	(0.310)	(0.269)	(0.332)
Historical monsoon rainfall SD*Shock	-0.00201***	-0.00517***	0.000686	0.00408**
	(0.000704)	(0.00152)	(0.00133)	(0.00163)
Historical monsoon rainfall SD (20-year average)	0.0153***	0.0356***	-0.00628	-0.0265**
	(0.00496)	(0.0107)	(0.00934)	(0.0115)
Historical monsoon rainfall SD*Shock*1981	-0.000174***	-0.000227*	1.82e-05	0.000397***
	(5.82e-05)	(0.000126)	(0.000110)	(0.000135)
Historical monsoon rainfall SD*Shock*1999	-0.000166**	0.000181	-0.000328**	0.000502***
	(6.96e-05)	(0.000151)	(0.000131)	(0.000161)
Year=1981	0.231**	-0.142	0.128	-0.703***
	(0.0955)	(0.207)	(0.180)	(0.221)
Year=1999	0.0531	-1.537***	0.935***	0.328
	(0.114)	(0.246)	(0.214)	(0.264)
Observations	5,942	5,942	5,942	5,942
R-squared	0.236	0.337	0.274	0.180
Village and year fixed effects	Yes	Yes	Yes	Yes

Note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$; all monetary units are in 1982 rupees. Coefficients are estimated using seemingly unrelated regressions as dependent variables are correlated. Rainfall shock = log (contemporaneous total monsoon rainfall), and village fixed effects are used to control for the historical rainfall as in the literature. Control variables include June temperature, historical June temperature, household size, household head's years of education and age, land size, village population, and distance to a city. Historical weather variables are defined as 20-year average before the contemporaneous year. All coefficients are based on weighted analysis using the original sampling weight.

Table A4: Long-run Effects of Weather on Different Sources of Income - Alternative Shock Definition II

	Dependent variable: Log income measured in rupees			
	Total income	Agricultural income	Agricultural wage	Non-farm wage
	(1)	(2)	(3)	(4)
Rainfall Shock	0.000586**	0.000809	-0.000485	-0.000324
	(0.000248)	(0.000554)	(0.000467)	(0.000578)
Historical monsoon rainfall SD*Shock	-2.84e-06***	-5.12e-06**	3.96e-06**	1.73e-06
	(9.72e-07)	(2.17e-06)	(1.83e-06)	(2.27e-06)
Historical monsoon rainfall SD (20-year average)	0.000887**	0.000971	-0.00256***	-0.000982
	(0.000405)	(0.000905)	(0.000762)	(0.000944)
Historical monsoon rainfall SD*Shock*1981	3.20e-07	-1.75e-07	-8.98e-07	2.54e-06
	(7.60e-07)	(1.70e-06)	(1.43e-06)	(1.77e-06)
Historical monsoon rainfall SD*Shock*1999	6.33e-07	4.57e-06*	-5.90e-06***	-1.77e-07
	(1.09e-06)	(2.43e-06)	(2.05e-06)	(2.53e-06)
Historical monsoon rainfall (20-year average)	5.55e-05	0.000440**	0.000288	0.000293
	(9.84e-05)	(0.000220)	(0.000185)	(0.000230)
Year=1981	0.177***	-0.0711	-0.0961	-0.489***
	(0.0553)	(0.124)	(0.104)	(0.129)
Year=1999	0.0589	-0.922***	0.466***	0.411***
	(0.0682)	(0.152)	(0.128)	(0.159)
Observations	5,942	5,942	5,942	5,942
R-squared	0.166	0.230	0.207	0.097
State fixed effects	Yes	Yes	Yes	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1; all monetary units are in 1982 rupees. Coefficients are estimated using seemingly unrelated regressions as dependent variables are correlated. Rainfall shock = monsoon rainfall at time t - historical (20-year) monsoon rainfall . Control variables include June temperature, historical June temperature, household size, household head's years of education and age, land size, village population, and distance to a city. Historical weather variables are defined as 20-year average before the contemporaneous year. All coefficients are based on weighted analysis using the original sampling weight.

Table A5: Long-run Effects of Weather on Different Sources of Income - Alternative Temperature Deifinition

| | Dependent variable: Log income measured in rupees | | | |
| | Total income | Agricultural income | Agricultural wage | Non-farm wage |
	(1)	(2)	(3)	(4)
Rainfall Shock	0.778***	1.450***	-0.707*	-1.066**
	(0.197)	(0.441)	(0.371)	(0.460)
Historical monsoon rainfall SD*Shock	-0.00427***	-0.00811***	0.00594***	0.00331
	(0.00100)	(0.00224)	(0.00189)	(0.00234)
Historical monsoon rainfall SD (20-year average)	0.000675*	0.000563	-0.00233***	-0.000679
	(0.000404)	(0.000905)	(0.000762)	(0.000943)
Historical monsoon rainfall SD*Shock*1981	0.00107	0.000904	-0.00136	0.00404**
	(0.000842)	(0.00188)	(0.00159)	(0.00197)
Historical monsoon rainfall SD*Shock*1999	0.00125	0.00234	-0.00515***	0.00145
	(0.00100)	(0.00224)	(0.00189)	(0.00233)
Historical monsoon rainfall (20-year average)	0.000104	0.000493**	0.000274	0.000241
	(9.98e-05)	(0.000223)	(0.000188)	(0.000233)
Year=1981	0.0785*	-0.230**	-0.0318	-0.188*
	(0.0473)	(0.106)	(0.0891)	(0.110)
Year=1999	-0.0597	-1.133***	0.466***	0.880***
	(0.0705)	(0.158)	(0.133)	(0.165)
Observations	5,942	5,942	5,942	5,942
R-squared	0.167	0.230	0.207	0.096
State and year fixed effects	Yes	Yes	Yes	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1; all monetary units are in 1982 rupees. Coefficients are estimated using seemingly unrelated regressions as dependent variables are correlated. Rainfall shock = log(contemporaneous total monsoon rainfall)-log(20-year average total monsoon rainfall). Control variables include monsoon (June-September) temperature, historical monsoon temperature, household size, household head's years of education and age, land size, village population, and distance to a city. Historical weather variables are defined as 20-year average before the contemporaneous year. All coefficients are based on weighted analysis using the original sampling weight.