

**What Do We Learn from the Weather?
The New Climate-Economy Literature**

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Appendix Table 1: Summary of Variables and Methods Used in Panel Studies

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
<i>Aggregate Output</i> Anttila-Hughes and Hsiang (2012)§	Household assets, income, and expenditure; infant mortality	Typhoon wind speed, Temperature†, Precipitation†	Linear wind speed; wind speed bins*	Year	Province (some data at household level; fixed effect at province level)	Yes (time invariant household controls; time varying individual age controls)	Clustered by region
Barrios et al. (2010)	Aggregate output	Precipitation, Temperature†	Anomalies	5 year period	Country	Yes* (time varying controls)	Bootstrapped
Bruckner and Ciccone (2011)	Democratic change; aggregate output	Precipitation	Log rainfall	Year	Country	No	Clustered by country
Burke and Leigh (2010)	Democratization; aggregate output	Temperature, Precipitation	First-differenced	Year	Country	Yes* (time varying controls)	Clustered by country
Dell, Olken, and Jones (2012)	Aggregate, industrial, and agricultural output growth; leadership change; conflict	Temperature, Precipitation†	Levels, Logs*, Bins*	Year in the panel (15 year period in the long differences specification)	Country	No	Clustered by country and region-year
Deryugina (2011)§	Per capita earnings, employment, government transfers	Hurricane wind speed	Indicator if the county experienced a hurricane	Year	County	No	Adjusted for spatial and serial correlation
Fomby et al. (2013)	Output; Agricultural output; CPI; Trade openness; Financial depth; Government spending	Natural disaster (droughts, floods, earthquakes, and storms)	Binary disaster indicator	Year	Country	Yes (lagged dependent variable)	Homogenous error structure that is independent across equations
Hsiang (2010)	Output; Sectoral output	Temperature, windstorms, precipitation†	Levels	Year or Season	Country	Yes (lagged dependent variable)	Spatial (Conley) and serial correlation
Hsiang and Jina (2013)§	Aggregate output growth	Cyclone wind speed or energy, Temperature†, Precipitation†	Levels	Year	Country	Yes* (time varying controls)	Spatial and serial correlation
Hsiang and Narita (2012)	Economic damages, mortality	Cyclone wind speed or energy, Temperature†,	Levels	Year	Country	No	Clustered by year

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Loayza et al. (2012)	Aggregate output; industrial, agricultural, and services output	Precipitation† Droughts, Floods, Storms, Earthquakes	Proportion of population affected by each disaster type	5 year period	Country	Yes (time varying controls and lagged dependent variable)	Not specified
Miguel et al. (2004)	Civil conflict	Rainfall	First-differenced	Year	Country	Yes*	Clustered by country
Raddatz (2009)§	Output	Wind storms, Droughts, Floods, Temperature	Binary disaster indicator	Year	Country	Yes (lagged dependent variable and time varying controls)	Parametric bootstrapping
Yang (2008)	Damages, international financial flows	Hurricane wind speed	Number of hurricane landfalls and near landfalls	Year	Country	No	Clustered by country
<i>Agriculture</i> Burke and Emerick (2010)	Crop yields, crop revenues, adjustment measures	Temperature, Precipitation†	Growing season degree days and precipitation, above and below a threshold	Five year to twenty year* periods for the long differences (annual for panel)	County	No	Clustered by state
Deschenes and Greenstone (2007)	Agricultural profits	Temperature, Precipitation	Growing season degree-days and total precipitation	Year	County	No	Clustered at the county level; Conley (1999)
Feng et al. (2010)	Crop yields; migration	Temperature, Precipitation	Levels, levels squared	Five-year periods	State	No	Robust standard errors
Feng et al. (2012)§	Crop yields; net outmigration	Temperature, Precipitation	Moderate and extreme degree days; precipitation and precipitation squared	Five-year periods	County	No	Clustered by state
Fishman (2011)	Log crop yield	Temperature, Precipitation	Growing season degree day anomalies; precipitation anomalies; intra-seasonal variation of rainfall anomalies; number of rainy days anomalies; all of the above in levels*	Year	District	Yes* (lagged dependent variable, time varying irrigation measure)	Clustered by state

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Hidalgo et al. (2010)	Agricultural income, land invasions	Precipitation	Absolute value of average monthly anomalies; squared anomalies*	Year	Municipality	Yes (time varying controls)	Clustered by municipality
Guiteras (2007)	Crop yields	Temperature, Precipitation	Growing season moderate and extreme degree days and their squares; monthly precipitation and their squares; temperature bins*	Year	District	No	Two-way clustering by district and state x year
Jayachandran (2006)	Agricultural yields; agricultural wage	Rainfall	A rain shock variable that equals one if annual rainfall is above the eightieth percentile for the district, zero if it is between the eightieth and twentieth percentiles, and minus one if it is below the twentieth percentile.	Year	District	No	Clustered by region-year
Levine and Yang (2006)	Rice output	Rainfall	$\ln(\text{rainfall}) - \ln(\text{mean rainfall})$	Year	District	No	Clustered by province
Lobell et al. (2011)	Crop yields	Temperature, Precipitation	Temperature and precipitation levels and their squares (detrended and observed); maximum and minimum temperature*	Year	Country	No	Bootstrap
Schlenker and Lobell (2010)	Crop yields	Temperature, Precipitation	Temperature and precipitation levels; levels and their squares; degree days and a quadratic in precipitation; degree day bins and a	Year	Country	No	Bootstrap

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Schlenker and Roberts (2009)	Crop yields	Temperature, Precipitation†	quadratic in precipitation Bins	Year	County	No	Conley (1999)
Welch et al. (2010)	Crop yields	Temperature, Radiation	Levels of min temperature during the vegetative, reproductive, and ripening phases; max temperature, radiation, and precipitation during the same phases	Season-year	Farm	Yes* (time varying controls)	Cluster by village/district; bootstrapped*
Yang and Choi (2007)	Domestic income	Dry and wet season rainfall	Levels	Year	Household	No	Clustered by weather station coverage area
<i>Labor Productivity</i> Graff Zivin and Neidell (2013)	Time allocation	Min† and max temperature; precipitation†; snowfall†; humidity†	Max temperature bins; levels for other weather variables	Day	County (time use data are at individual level; weather and fixed effects are at county level)	Yes (daylight hours, time-invariant individual covariates)	Clustered by county-date
Connolly (2008)	Time allocation	Precipitation	Rainy day indicator, defined as daily precipitation above 0.1 inches	Day (no time fixed effects)	Region (time use data are at individual level; weather and fixed effects are at region=sunbelt, non-sunbelt level)	Yes (time-invariant individual covariates)	Robust
<i>Industrial and Services Output</i> Cachon et al. (2011)§	Automobile production	Min and max temperature, wind speed, humidity, pressure, visibility, dew point, cloud	Indicators that weather variables fall above or below a pre-determined threshold	Week	Factory	Yes (time varying controls)	Not specified

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
		cover, precipitation, thunderstorm, snow, historical average high, low, and mean temperatures, record high and low temperatures					
Jones and Olken (2010) <i>Health</i>	Export growth	Temperature, Precipitation†	Levels	Year	Country	No	Cluster by country
Barreca (2012)	Mortality rate	Temperature, Humidity, Precipitation†	Bins	Month	County	No	Cluster by state
Barecca et al. (2013)§	Log mortality rate	Temperature, Precipitation†, Air Conditioning	Bins	Month	State	Yes	Cluster by state
Burgess et al. (2011)§	Log mortality rate	Temperature, Precipitation†	Bins, Levels*	Year	District	No	Cluster by district
Deschenes and Greenstone (2011)	Mortality	Temperature, Precipitation†	Bins	Year	County by age group	No	Cluster by county-by-age group
Deschenes et al. (2009)	Log birth weight	Temperature	Bins	Year	County by demographic group	Yes	Cluster by county-demographic group
Deschenes and Moretti (2009)	Mortality	Temperature	Bins	Day	County by gender	No	Cluster by county
Kudamatsu et al. (2012)	Infant mortality	Predicted malaria (based on a combination of rainfall and temperature), drought	Index	Year	DHS cluster by calendar month	No	Cluster by grid cell
Maccini and Yang (2009) <i>Energy</i>	Self-reported health; Height; Schooling; Household assets	Rainfall in childhood	Logs	Season	District	No	Cluster by birth province
Auffhammer and	Household electricity	Temperature	Bins	Billing period	Household	Yes (time varying	Clustered by zip

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Aroonruengsawat (2011)	consumption					controls)	code
Bhattacharya (2003)	Household expenditure on food consumed inside and outside the household, clothing, and fuel	Temperature	Indicator equal to 1 if temperature was more than 10F below normal	Month	State	No	Not reported
Eskeland and Mideksa (2010)	Demand for electricity	Temperature in capital city or three largest cities	Heating degree days and cooling degree days	Year	Country	Yes (time varying controls)	Clustered by country
<i>Conflict</i> Anderson et al. (2013)§	Expulsion of the Jewish population	Temperature	Anomalies	Five year period	Cities	Yes (time varying control)	Huber-White
Bohlken and Sergenti	Hindu-Muslim riots	Precipitation	First-differenced	Year	State	Yes (time varying control)	Clustered by state
Burke et al. (2009)	Civil war onset and incidence (Causalities above threshold)	Temperature, precipitation†	Levels; first-differenced*, deviations from trend*	Year	Country	Yes* (time varying controls)	Clustered by country
Cicccone (2011)	Civil war onset and incidence (Causalities above threshold)	Precipitation, temperature†	Logs	Year	Country	Yes (lagged dependent variable)	Clustered by country
Couttenier and Soubeyran (2013)	Civil war incidence (Causalities above threshold)	PDSI, temperature, precipitation	PDSI: levels; temperature: levels; precipitation: logs	Year	Country	No	Conley
Fjelde and von Uexkull (2012)	Communal conflict	Precipitation	Negative and positive anomalies	Year	Subnational administrative unit	Yes (time varying controls, lagged dependent variable)	Clustered by administrative unit
Harari and La Ferrara (2013)§	Armed Conflict Location and Event (ACLEDE) conflict events indicator	Growing season Standardized Precipitation-Evapotranspiration Index (SPEI), Temperature†, Precipitation†	Fraction of the main crop's growing season during which SPEI was below its cell-level mean by one standard deviation or more.	Year	1 degree grid cell (fixed effect at country level)	Yes (lagged dependent variable, controls)	Cluster by cell
Hsiang et al. (2011)	Annual conflict risk	El Nino/La Nina	Sea surface temperature in the Nino3 region between May and December	Year	Country	Yes* (time varying controls and lagged dependent variable)	Adjusted for serial and spatial correlation (Conley)

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Jia (2012)	Peasant revolts	Extreme rainfall	Indicators for exceptional and limited droughts and floods	Year	Prefecture	Yes* (geographic characteristics interacted with time)	Clustered at weather station level
Kung and Ma (2012)	Peasant revolts	Extreme rainfall	Indicators for extreme rainfall	Year	County	Yes (time varying controls)	Clustered by county
Maystadt et al. (2013)	ACLED conflict events, cattle prices	Temperature Drought Index	Levels	year-month	region	No	Robust standard errors
O'Laughlin et al. (2012)	ACLED conflict events,	Precipitation, temperature	Anomalies (six month deviations in rainfall and temperature)	Month (fixed effects at annual level)	1 degree grid cells (fixed effect at country level)	Yes* (time varying controls; lagged dependent variable)	Clustered by grid cell
Theisen et al. (2011)	Civil conflict onset (casualties above threshold)	Precipitation	Anomalies (six month deviations in rainfall)	Year	0.5 x 0.5 grid cells (fixed effects are not included, or included at country level*)	Yes*(time varying controls)	Clustered by country
Theisen (2012)	Civil conflict onset and incidence (casualties above threshold)	Precipitation, temperature, drought	Anomalies and their squares	Year	0.25 degree grid cells (no fixed effects)	Yes* (time varying controls)	Clustered by grid cell
<i>Aggression and Crime</i>							
Jacob et al.(2007)	Violent crime, Property crime	Temperature, Precipitation	Levels	Week	Jurisdiction	No	Clustered by state*year* month
Miguel (2004)	Witch murders	Precipitation	Indicator if there is a drought or flood	Year	Village	Yes* (time varying control)	Clustered by village
Oster (2004)	Witchcraft trials	Temperature, winter severity	Anomalies	Region	Decade	No	Robust
Ranson (2012)§	9 types of violent and property crime	Temperature, Precipitation	Temperate and precipitation bins	County	Month	No	Clustered by year*month
Sekhri and Storeygard (2013)§	Dowry murders	Precipitation	Deviations above and below the mean	Year	District	Yes* (time varying control)	Clustered by district
<i>Other Sectors</i>							
Gray and Mueller (2012)	Migration	Rainfall	(Annual rainfall)/(median rainfall) and its square	Year	Subdistrict (observations at individual level;	Yes (time varying controls)	Clustered by village

Paper	Outcome variable(s)	Weather variables	Weather measures	Time unit	Panel unit	Non-weather Regressors	Error structure
Miao and Popp (2013) [§]	Risk mitigating patents	Drought (SPEI), rainfall	Levels	Year	Country weather and fixed effects at subdistrict level)	Yes (time varying controls)	Clustered by country
Munshi (2003)	Migration	Rainfall	Levels	Year	Individual	No	Clustered by community-year

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Appendix Table 2: Weather Data Used in Panel Studies

Study	Region	First year in weather sample	Last year in weather sample	Type of weather data	Weather dataset
<i>Aggregate Output</i> Anttila-Hughes and Hsiang (2012) [§]	The Philippines	1950	2008	Windstorm: LICRICE; Temperature: reanalysis; Precipitation: satellite data de-biased with ground data	International Best Track Archive for Climate Stewardship (IBTrACS) database and Limited Information Cyclone Reconstruction and Integration for Climate and Economics (LICRICE) model (Hsiang, 2010); Temperature: National Center for Environmental Prediction (NCEP) Climate Data Assimilation System 1 Reanalysis; Rainfall: Climate Prediction Center Merged Analysis of Precipitation (CMAP).
Barrios, Bertinelli, and Strobl (2010)	Africa	1960	2000	Pre-constructed country level data	Intergovernmental Panel on Climate Change (IPCC) country level rainfall and temperature datasets
Bruckner and Ciccone (2011)	Sub-Saharan Africa	1980	2004	Satellite data de-biased with ground data	NASA Global Precipitation Climatology Project (GPCP)
Burke and Leigh (2010)	Global	1963	2001	Interpolated grid	TYN CY (Tyndall Centre) 1.1 dataset
Dell, Jones, and Olken (2012)	Global	1950	2003	Interpolated grid	Terrestrial Air Temperature and Precipitation: 1900-2006 Gridded Monthly Time Series from the University of Delaware (UDEL)
Deryugina (2011) [§]	U.S.	1980	1996	Data on wind speed in the eye of the hurricane	Best Tracks (HURDAT) dataset from the National Oceanic and Atmospheric Administration
Fomby, Ikeda, and Loayza (2013)	Global	1960	2007	Proxies extreme weather events with information about deaths and declared states of emergency	Emergency Disasters Database from the Centre for Research on the Epidemiology of Disasters (CRED)
Hsiang (2010)	Caribbean and Central America	1970	2006	Windstorm: LICRICE; Temperature: reanalysis; Precipitation: satellite data de-biased with ground data	Windstorms: IBTrACS and the LICRICE model; Temperature: NCEP; Precipitation: CMAP.
Hsiang and Jina (2013) [§]	Global	1950	2008	Windstorm: LICRICE; Temperature and precipitation: interpolated grid	Windstorms: IBTrACS and the LICRICE model; Temperature and precipitation: UDEL
Hsiang and Narita (2012)	Global	1950	2008	Windstorm: LICRICE; Temperature: reanalysis;	Windstorms: IBTrACS and the LICRICE model; Temperature: NCEP; Precipitation: CMAP.

Study	Region	First year in weather sample	Last year in weather sample	Type of weather data	Weather dataset
Loayza, Olaberria, Rigolini, and Christiaensen (2012)	Global	1961	2005	Precipitation: satellite data de-biased with ground data Proxies extreme weather events with information about deaths and declared states of emergency	CRED
Miguel, Satyanath, and Sergenti (2004)	Sub-Saharan Africa	1981	1999	Satellite data de-biased with ground data	GPCP
Raddatz (2009) [§]	Countries with at least one natural disaster	1975	2006	Proxies extreme weather events with information about deaths and declared states of emergency	CRED
Yang (2008)	Global	1970	2001	Data on wind speed in the eye of the hurricane	Best Tracks (HURDAT) dataset from the National Oceanic and Atmospheric Administration
<i>Agriculture</i>					
Burke and Emerick (2012) [§]	U.S.	1950	2005	Interpolated grid	Schlenker and Roberts (2009); see below
Deschenes and Greenstone (2007)	U.S.	1970	2000	Temperature: station data; Precipitation: interpolated data	Temperature: National Climatic Data Center "Cooperative Summary of the Day"; Precipitation: Parameter-elevation Regressions on Individual Slopes Model (PRISM) from the Spatial Climate Analysis Service at Oregon State
Feng, Krueger, and Oppenheimer (2010)	Mexico	1995	2005	Pre-constructed averages	State-level pre-constructed mean temperature and precipitation from the Servicio Meteorológico Nacional de Mexico (http://smn.cna.gob.mx/)
Feng, Oppenheimer, and Schlenker (2012) [§]	U.S. east of the 100th meridian (excluding FL)	1970	2009	Interpolated grid	Schlenker and Roberts (2009); see below
Fishman (2011)	India	1970	2004	Reanalysis	Indian Meteorological Department
Guiteras (2007)	India	1960	1999	Reanalysis	NCC dataset from the Climatic Research Unit (CRU), the National Center for Environmental Prediction / National Center for Atmospheric Research, and the Laboratoire de Météorologie Dynamique
Jayachandran (2006)	India	1956	1987	Interpolated grid	UDEL

Study	Region	First year in weather sample	Last year in weather sample	Type of weather data	Weather dataset
Levine and Yang (2006)	Indonesia	1993	1996	Precipitation	GHCN
Lobell, Schlenker, and Costa-Roberts (2011)§	Global	1980	2008	Interpolated grid	University of Delaware Terrestrial Air Temperature and Precipitation dataset
Schlenker and Lobell (2010)	Africa	1961	2002	Reanalysis; Interpolated grid	NCC; Climatic Research Unit of the University of East Anglia
Schlenker and Roberts (2009)	U.S. east of the 100th meridian (excluding FL)	1950	2005	Interpolated grid	Authors' own calculations using the PRISM model and NOAA station temperature data
Welch, Vincent, Auffhammer, Moya, Dobermann, and Dawe (2010)	Farm sites in China, India, Indonesia, Philippines, Thailand, and Vietnam	1994	1999	Station	International Rice Research Institute
Yang and Choi (2007)	Philippines	1997	1998	Station	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
<i>Labor Productivity</i>					
Graff Zivin and Neidell (2013)	U.S.	2003	2006	Station	NCDC Daily Summaries
Connolly (2008)	U.S.	2003	2004	Station	NCDC Daily Summaries
<i>Industrial and Services Output</i>					
Cachon, Gallino, and Olivares (2011)§	U.S.	1994	2005	Station	National Weather Service Forecast Office (NWSFO) and weather.com
Jones and Olken (2010)	Global	1963	2001	Interpolated grid	UDEL
<i>Health</i>					
Barreca (2012)	U.S.	1973	2002	Station	Summary of the Day from National Climatic Data Center (NCDC)
Barreca et al (2013)§	U.S.	1900	2004	Station	National Climatic Data Center (NCDC) Global Historical Climatology Network-Daily (GHCN-Daily)
Burgess et al. (2011)§	India	1957	2000	Reanalysis	NCC dataset from the CRU/NCEP/NCAR/LMD
Deschenes, Greenstone, and Guryan (2009)	U.S.	1972	1988	Station	Summary of the Day from National Climatic Data Center (NCDC)

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Deschenes and Moretti (2009)	U.S.	1972	1988	Station	Summary of the Day from National Climatic Data Center (NCDC)
Deschenes and Greenstone (2011)	U.S.	1968	2002	Station	Summary of the Day from National Climatic Data Center (NCDC)
Kudamatsu et al (2012)§	Africa	1957	2002	Reanalysis	ERA-40 data archive from the European Centre for Medium-Term Weather Forecasting (ECMWF)
Maccini and Yang (2009)	Indonesia	1953	1974	Station	Global Historical Climatology Network Precipitation and Temperature Data
<i>Conflict</i>					
Anderson et al. (2013)§	European cities	1100	1800	Pre-constructed 32 point dataset	"Growing season temperature in Europe and climate forcings over the past 1400 years," Guiot and Corona (2010)
Bohlken and Sergenti	India	1982	1995	Satellite data de-biased with ground data	GPCP
Burke et al. (2009)	Sub-Saharan Africa	1981	2002	Interpolated grid	CRU
Ciccione (2011)	Sub-Saharan Africa	1979	2009	Satellite data de-biased with ground data	GPCP
Couttenier and Soubeyran (2013)	Sub-Saharan Africa	1952	2005	Interpolated grid	Palmer drought severity index (PDSI) calculated by Dai et al. (2004)
Fjelde and von Uexkull (2012)	Sub-Saharan Africa	1990	2008	Satellite data de-biased with ground data	GPCP
Harari and La Ferrara (2013)§	Africa	1997	2011	Reanalysis	European Centre for Medium-Range Weather Forecasts (ECMWF).
Hidalgo et al. (2010)	Brazil	1988	2004	Station	Brazilian National Water Agency
Hsiang, Meng, and Cane (2011)	Global	1950	2004	Reanalysis	National Centers for Environmental Prediction (NCEP) Climate Data Assimilation System 1 (CDAS1)
Jia (2012)	China	1470	1900	Pre-constructed prefecture level data	Atlas on the Spatial Distribution of Drought and Waterlog in China for the Recent Five Hundred Years; Chinese State Meteorological Society (1981)
Kung and Ma (2012)	China	1651	1910	Pre-constructed prefecture level data	Atlas on the Spatial Distribution of Drought and Waterlog in China for the Recent

Study	Region	First year in weather sample	Last year in weather sample	Type of weather data	Weather dataset
					Five Hundred Years; Chinese State Meteorological Society (1981)
Maystadt et al. (2013)	Somalia	1997	2009	Interpolated grid	CRU
O'Laughlin et al. (2012)	East Africa	1990	2009	Interpolated grid	CRU
Theisen et al. (2011)	Africa	1960	2004	Interpolated grid	Global Precipitation Climatology Center (GPCC)
Theisen (2012)	Kenya	1989	2004	Interpolated grid	Temperature: CRU; Precipitation: GPCC
Aggression and Crime					
Jacob et al. (2007)	U.S.	1995	2001	Station	National Climatic Data Center (NCDC)
Oster (2004)	Europe	1520	1770	Pre-constructed regional data	Climate, History, and the Modern World, H. Lamb (1982) and Climatic Trends and Anomalies in Europe 1675-1715, L. R'acz (1994)
Miguel (2005)	Tanzania	1992	2002	Survey data	Author's survey of village council leaders which asked about natural disasters and calamities
Ranson (2012)§	U.S.	1960	2009	Station	Global Historical Climatology Network Daily (GHCN-Daily) dataset
Sekhri and Storeygard (2013)§	India	2002	2007	Satellite de-biased using station data	"A real-time daily precipitation analysis over South Asia," Xie et al. (2002)
<i>Energy</i>					
Auffhammer and Aroonruengsawat (2011)	California	2003	2006	Station	NCDC Daily Summaries, with missing values filled in using the algorithm in Auffhammer and Kellogg (2011)
Bhattacharya (2003)	U.S.	1980	1998	Pre-constructed average temperature for each state x month	NOAA
Eskeland and Mideksa (2010)	Europe	1994	2005	Reanalysis	NCEP
<i>Other sectors</i>					
Gray and Mueller (2012)	Bangladesh	1994	2010	Satellite	NASA's Prediction of Worldwide Energy Resources dataset
Miao and Popp (2013)§	Global	1970	2009	Interpolated grid	Drought: Standardized Precipitation Evapotranspiration Index (Vicente-Serrano et al, 2010), calculated using CRU; Precipitation: UDEL
Munshi (2003)	Mexico-U.S.	1973	1975		Unspecified

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