

Appendix

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1 Data

1.1 Detailed Explanation

We have district-level panel data for the 11 districts (Merz) of Armenia from the years 2004 to 2023. It consists of variables from aggregated household surveys, variables on detailed agricultural output and drought-related variables. Every variable represents the average level in a particular year in a particular district.

Our main drought measuring tool is the Standardized Precipitation Evapotranspiration Index, which is a multi-scalar drought index that allows a comparison with respect to normal long term conditions. We then multiply it by (-1) in order to make interpretation of the regression coefficients easier. It follows a Standard Normal Distribution with $sd = 1$. A value of +0.8 to +1.2 should occur around once or twice in 10 years. It can be calculated over multiple durations. Here we use the SPEI-3 which represents the water balance over the last 3 months.

We use data from the Global Drought Observatory to calculate our values. The standard way of expressing it is geo-spatial data with pixels corresponding to certain coordinates. Then we use the District polygons of Armenia's Merz to select all SPEI pixels touched by the district and average them out to calculate the value of the district. As the SPEI is recalculated every 10 days we then transform these values into different indicators. First we average out per year and district to get the value mean SPEI. This tells us the average deviation from the long term 3 month water balance per year and is the main SPEI variable we use in our regressions. Furthermore, we create two dummies based on this index. Dummy drought 1 is equal to 1 if there were at least 10 observations in a row with an SPEI value above +1. which would correspond to a 90 day period where the water balance was in moderate drought conditions. A second dummy is equal to 1 if there are 15 observations below -1 in a year. They do not have to be consecutive.

Our measure for agricultural stress is based on the VHI index, which is computed from meteorological satellite data. It can detect plants that wilt or show unusual colors and drops the index if it is the case.

1.1.1 Variable Names & Units

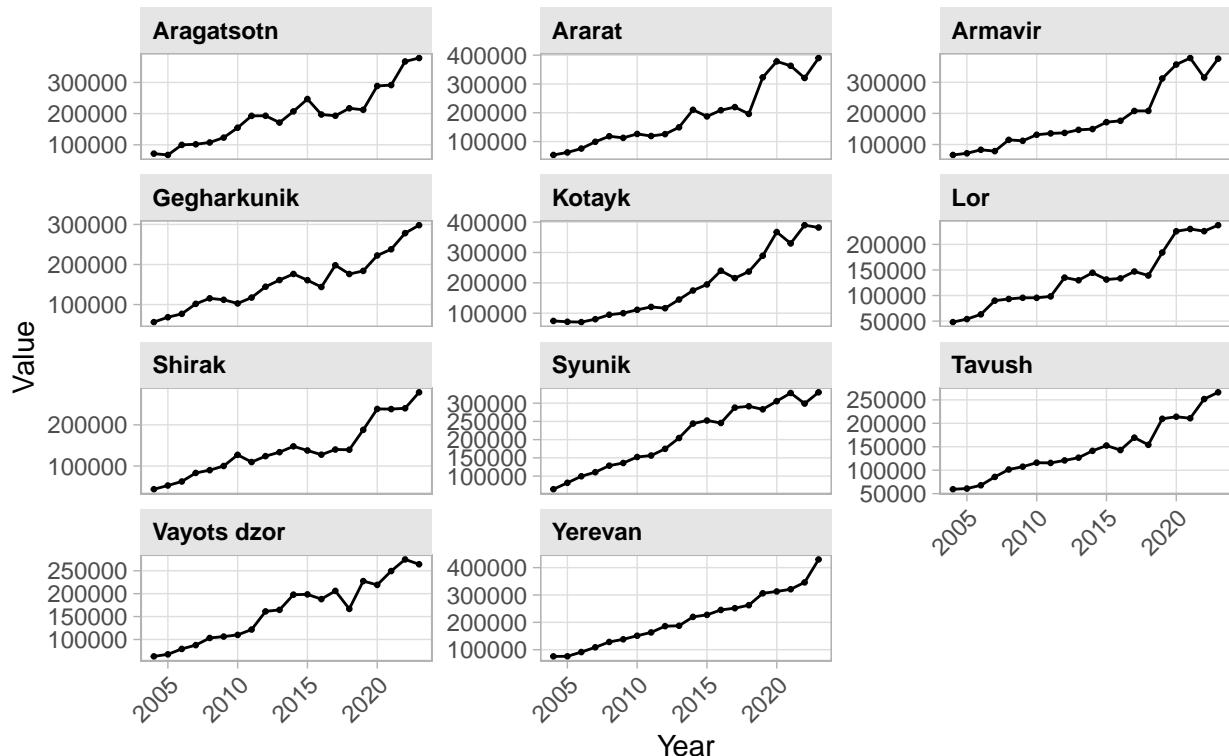
- In Armenian Dram (currency):
 - income: Household income
 - agric_income: Household agriculture income
 - fdcons: Household food consumption
 - fdpurch: Household food purchases
 - exp: Household expenditures
- In Percentage:
 - poverty: Rate of households in poverty
 - urban: Rate of households living in an urban area
 - share: Share of observations of SPEI above +1
 - agric_stress: Percentage of arable areas with a VHI (Vegetable Health Index) value below 35%
- Dummies:
 - drought_dummy1: Equals 1 if there are at least 10 SPEI observations above +1
 - drought_dummy2: Equals 1 if there are at least 15 SPEI observations above +1
- Tons (1000kg)
 - agric_output: Gross Agriculture output
 - grains_harvest: Tons of grains and leguminous plants harvested
 - vegetables_harvest: Tons of vegetables harvested
 - fruits_harvest: Tons of fruits and berries harvested

- potatoes_harvest: Tons of potatoes harvested
 - watermelon_harvest: Tons of watermelons harvested
 - grapes_harvest: Tons of grapes harvested
- Hectare (1000km²)
 - grains_area: Hectares used for harvesting grains and leguminous plants
 - vegetables_area: Hectares used for harvesting vegetables
 - fruits_area: Hectares used for harvesting fruits and berries
 - potatoes_area: Hectares used for harvesting potatoes
 - watermelon_area: Hectares used for harvesting watermelons
 - grapes_area: Hectares used for harvesting grapes
- Tons per hectare (1000kg / 1000km²)
 - output_per_field_grains: Grains harvested divided by area (yield)
 - output_per_field_vegetables: Vegetables harvested divided by area (yield)
 - output_per_field_fruits: Fruits harvested divided by area (yield)
 - output_per_field_potatoes: Potatoes harvested divided by area (yield)
 - output_per_field_grapes: Grapes harvested divided by area (yield)
- Other:
 - spei: SPEI measures deviation of the water balance from the long term mean. A value of 0 means we are at the long term mean, while +1 is a moderate drought that happens once or twice in 10 years. Note that we took the official SPEI and multiplied it by (-1) in order to adjust the coefficient sign interpretation in the regressions. Positive values indicate harsher conditions.
 - temperature: CRU land-based measure of average surface temperature in Celsius

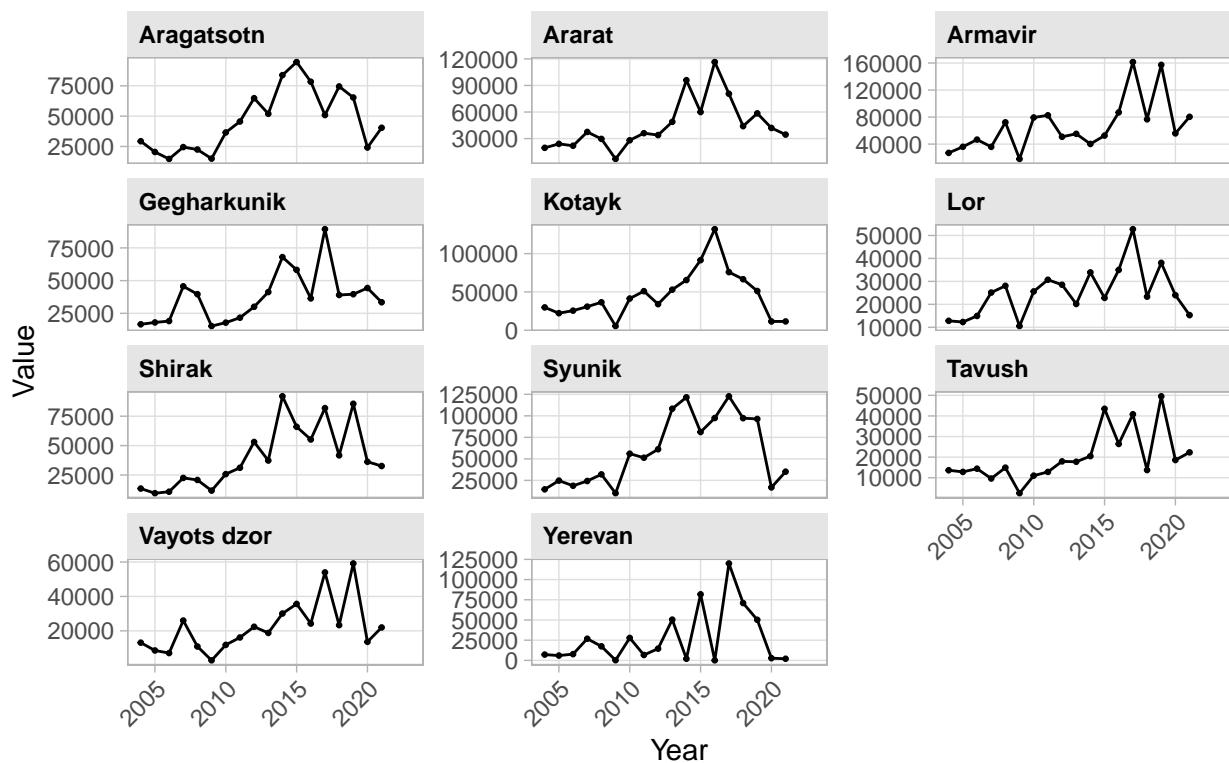
1.2 Descriptive Evidence

1.2.1 Raw Data Graphs

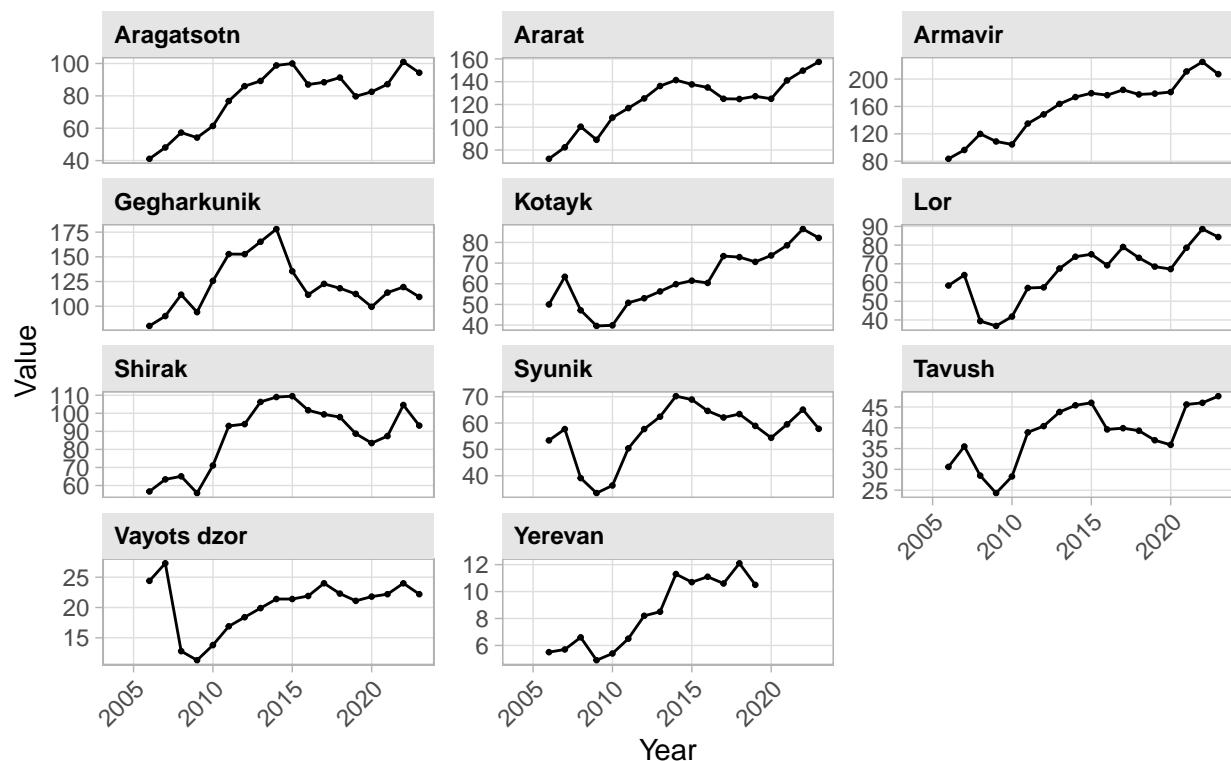
Evolution of: Household Income



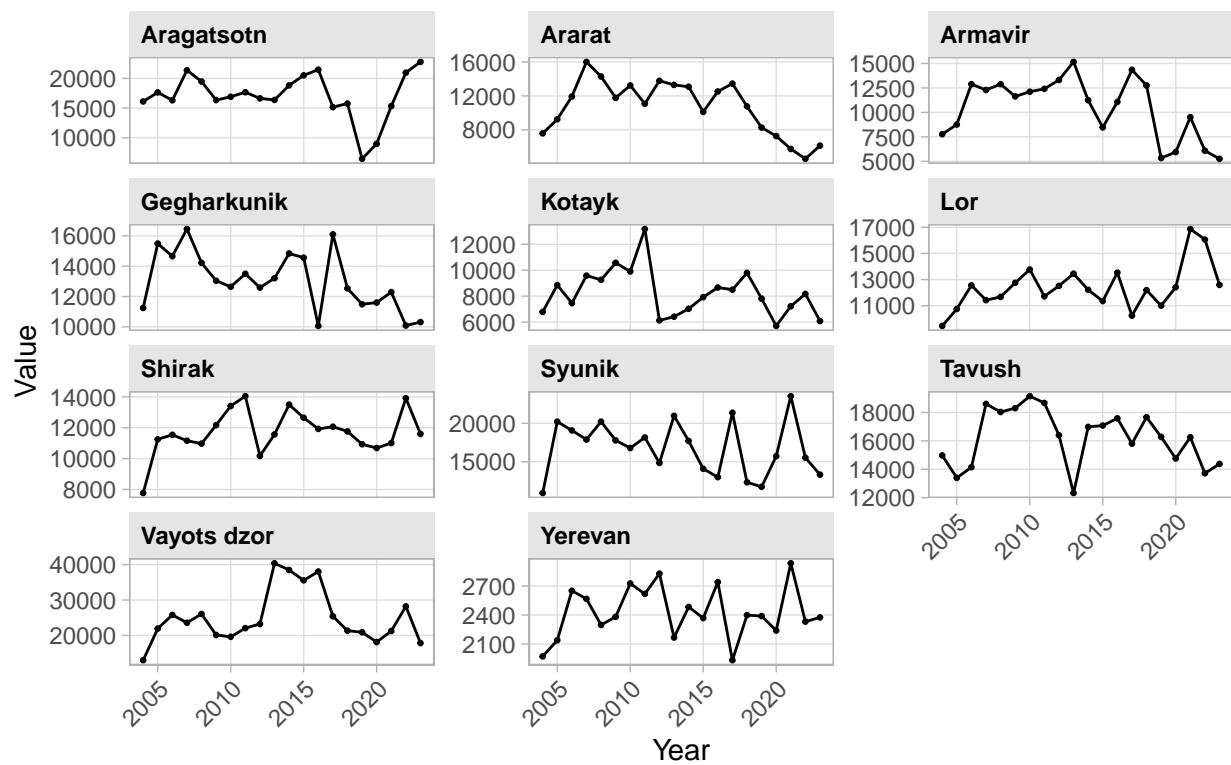
Evolution of: Household Agricultural Income



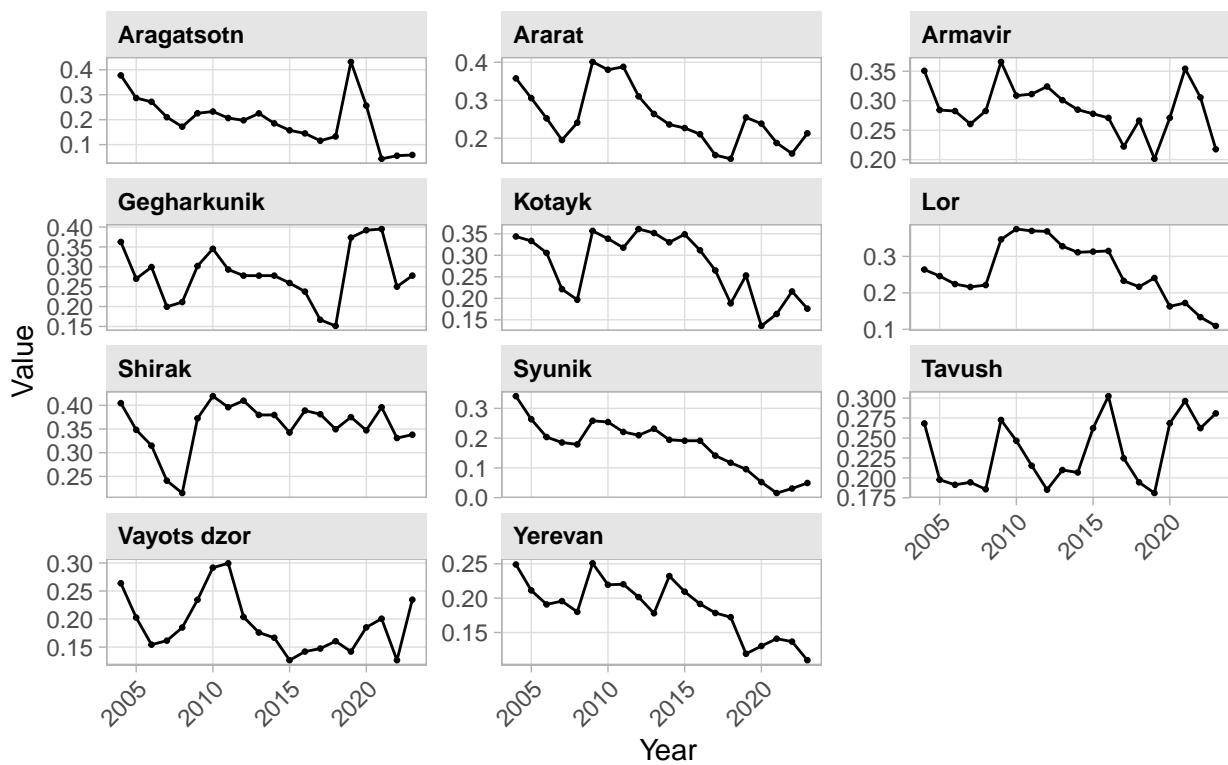
Evolution of: Gross Agricultural Output



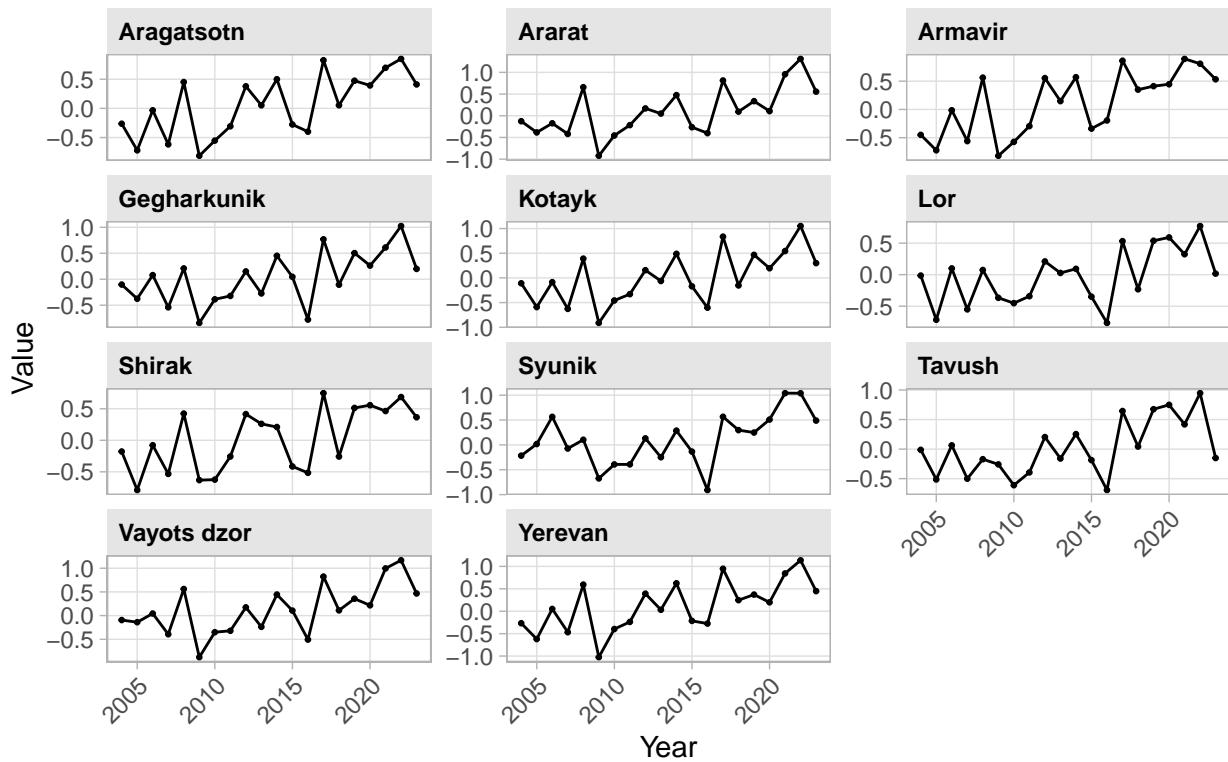
Evolution of: Household food Consumption



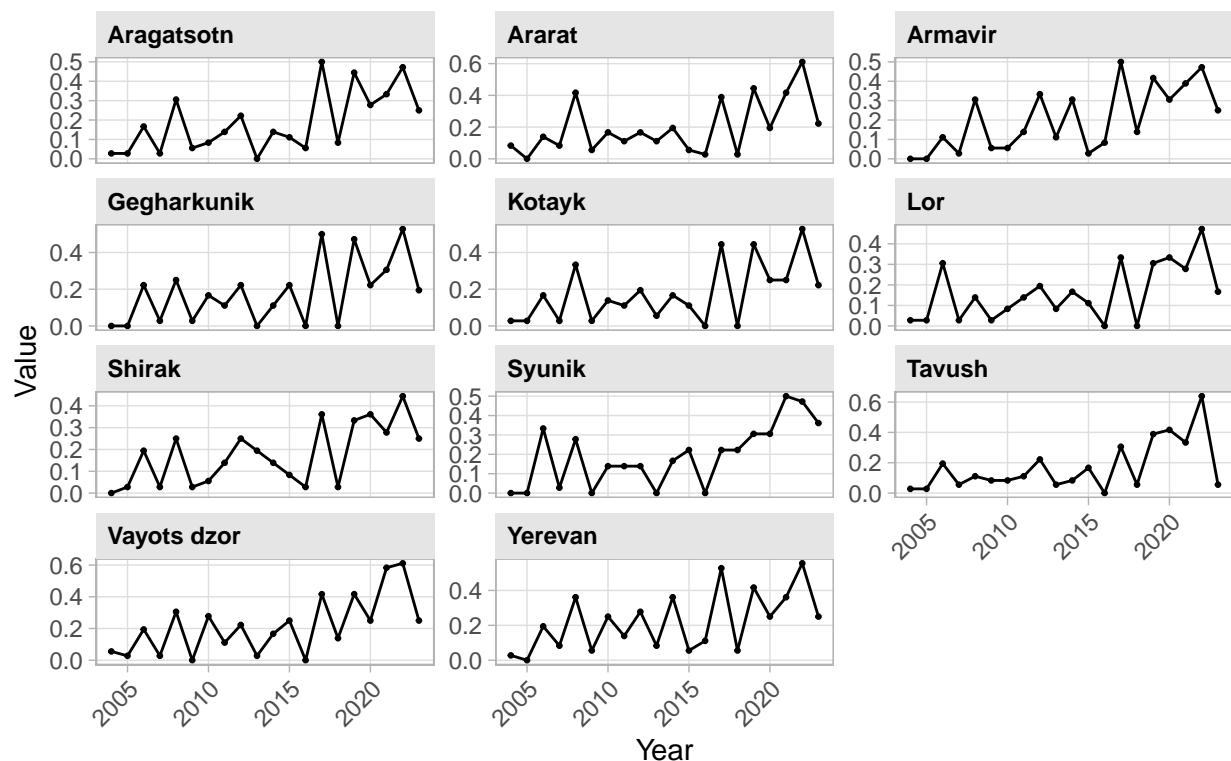
Evolution of: Rate of households in poverty



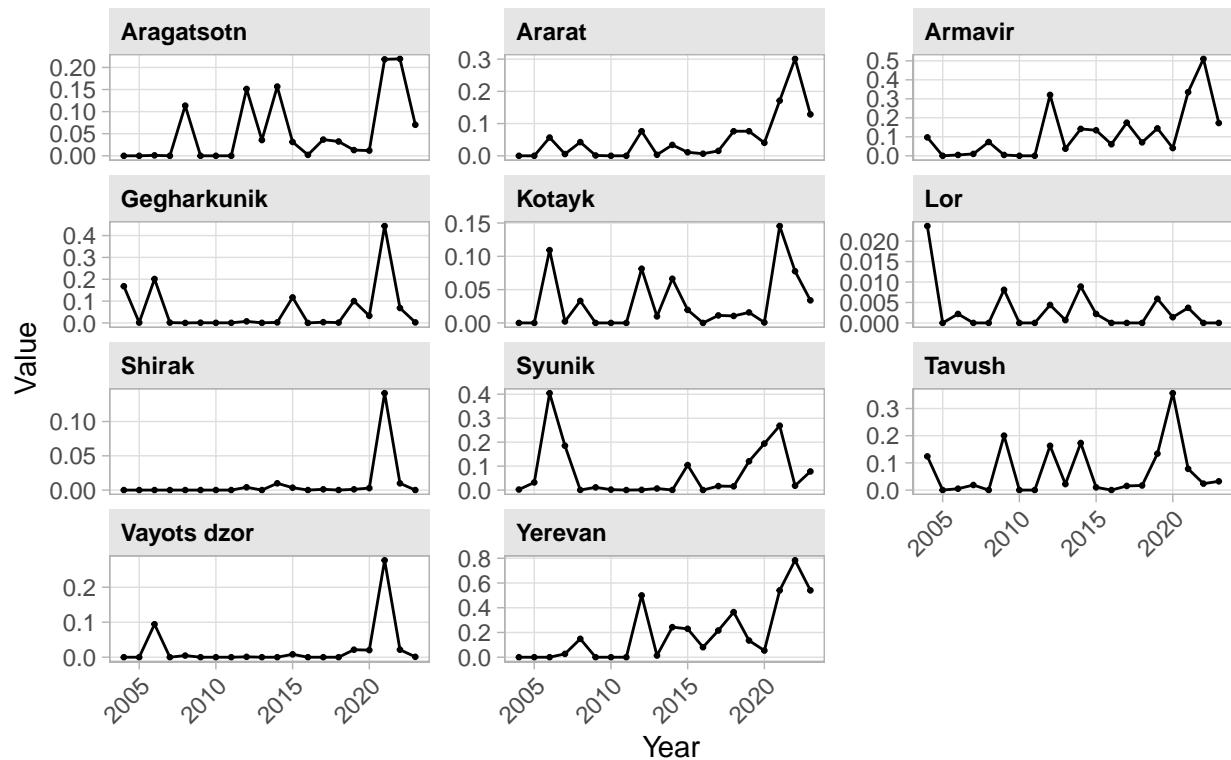
Evolution of: SPEI (Drought Index)



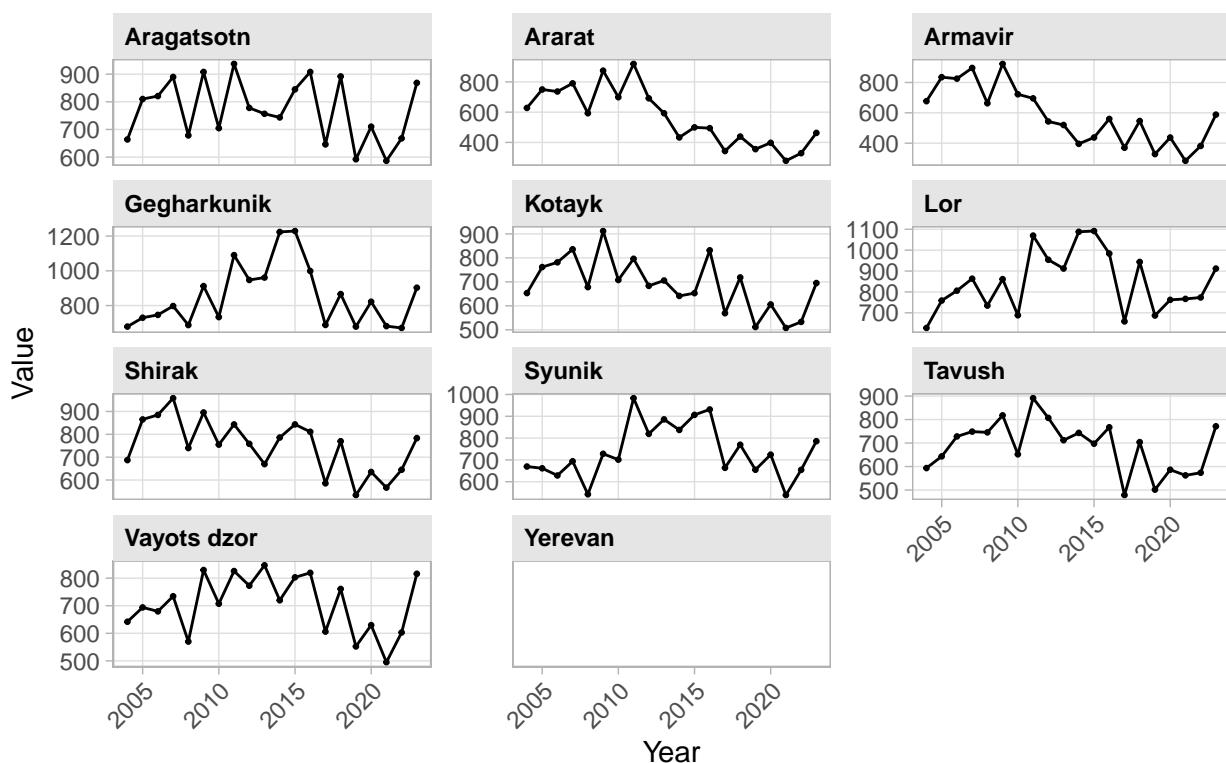
Evolution of: Share of observations of SPEI above +1



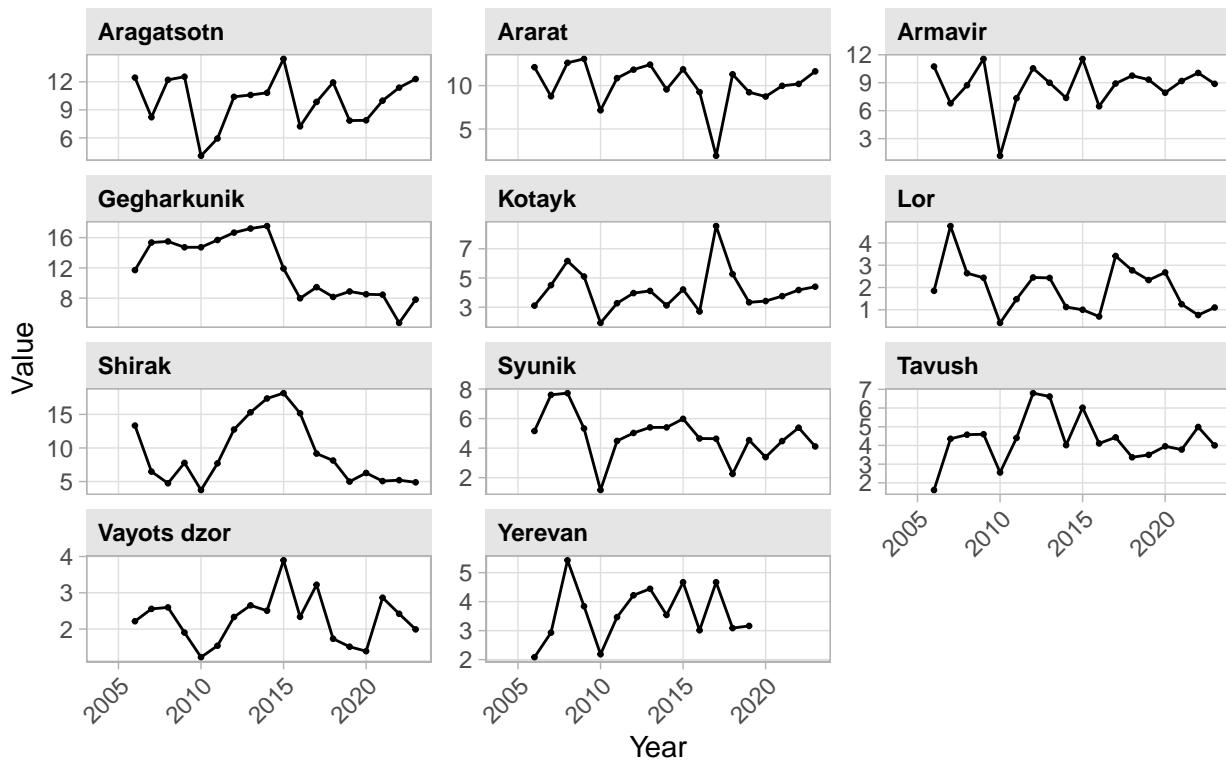
Evolution of: Agricultural Stress



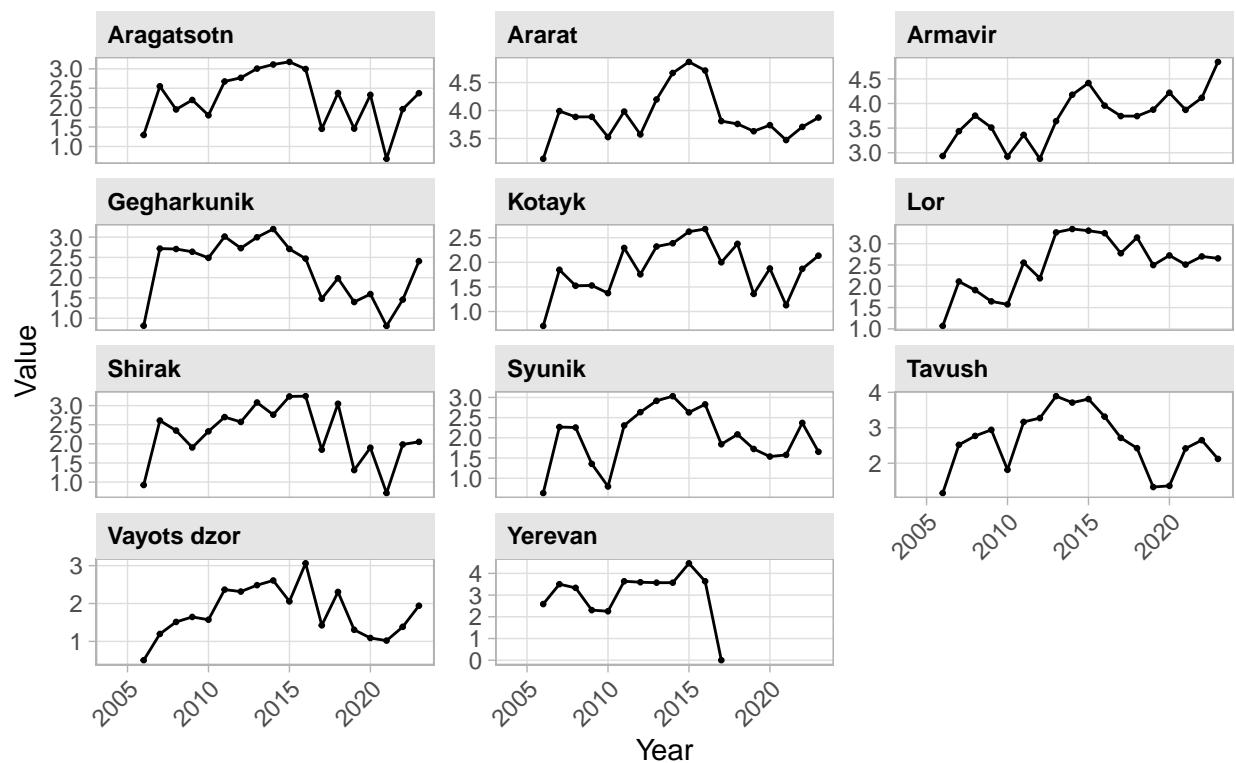
Evolution of: Total Rainfall



Evolution of: Fruits Yield

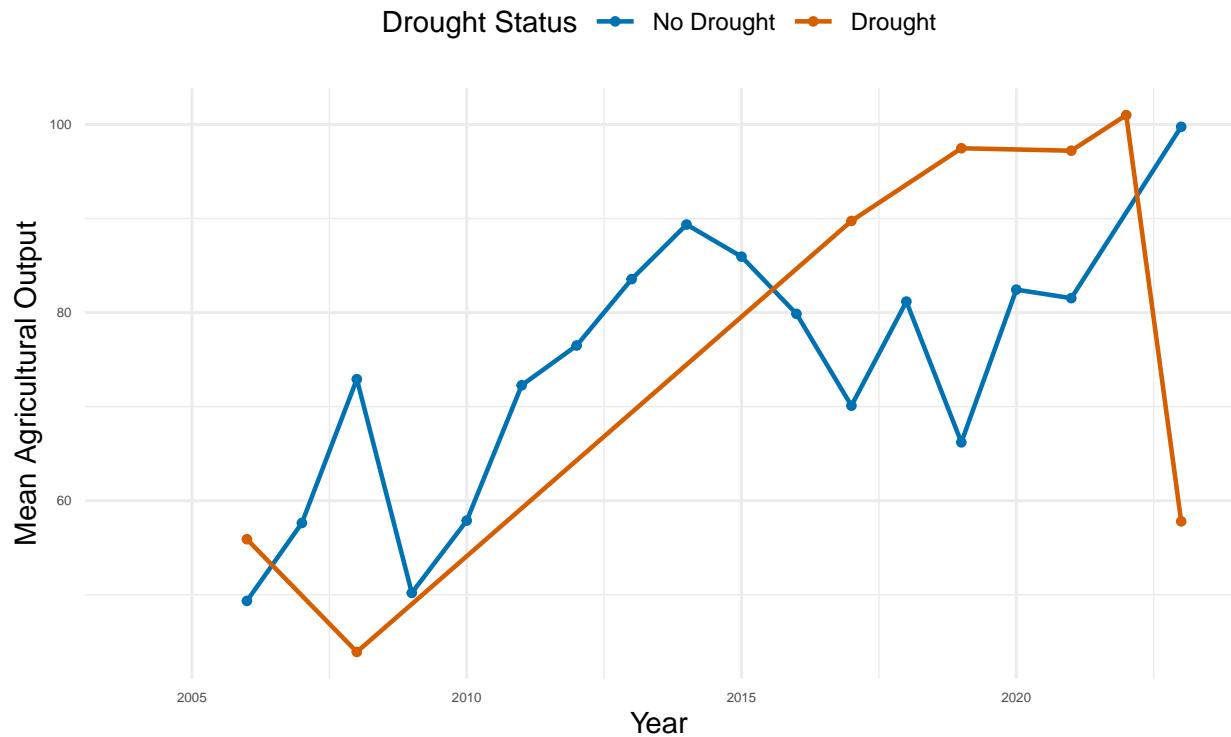


Evolution of: Grains Yield



1.2.2 Graphs with Drought Dummy

Impact of Drought on Agricultural Output

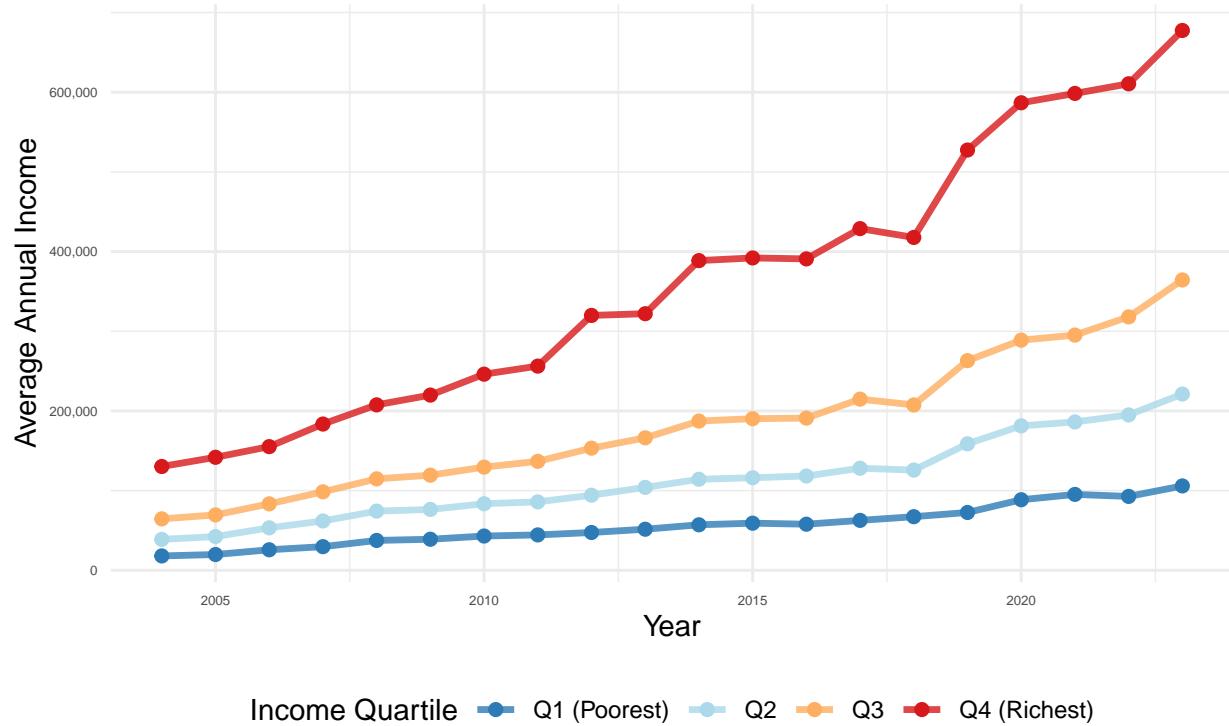


Note: This graph should be interpreted with caution as the number of districts is very low, meaning that any kind of visible relationship is very likely due to confounding.

1.2.3 Graphs with Drought Dummy and Quartiles

Average Income by Income Quartile Over Time

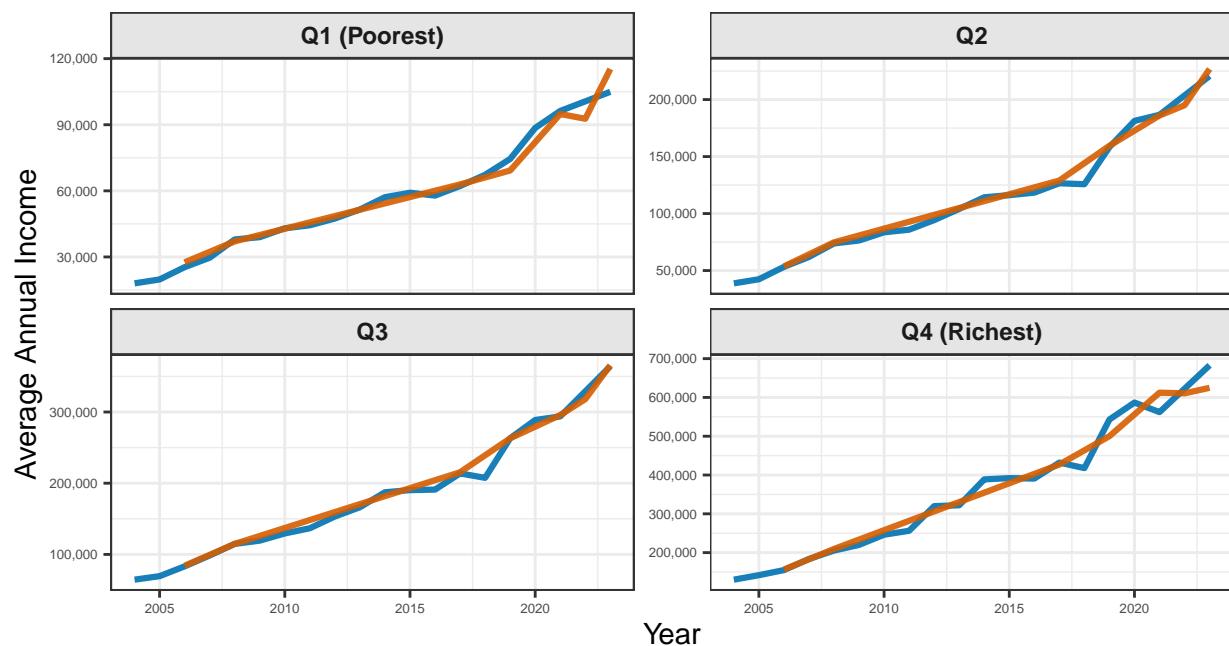
Averaged across all districts



Impact of Drought Events on Income, by Income Quartile

Average income trends faceted by income group

Drought Status — No Drought Event (Blue) — Drought Event (Orange)



2 TWFE Regressions

2.1 Data

2.1.1 Variable Units

- Armenian Dram (currency):
 - Income
 - Agriculture income
 - Food consumption
- Tons (1000kg)
 - Agriculture output
 - Grains harvest
 - Vegetables harvest
 - Fruits harvest
 - Potatoes harvest
- Tons per hectare (1000kg / 1000km²)
 - Grains output per field
 - Vegetables output per field
 - Fruits output per field
 - Potatoes output per field

Dependent variables are in logs.

2.2 Regressions

2.2.1 Equation

All our regressions resemble the following equations, where Y_{dt} represents the chosen outcome variable for district d at time t , λ_d represents the district-specific fixed effect, γ_t represents the time-specific fixed effect, X_{dt} is the chosen explanatory variable, β is the effect of said variable on the outcome, and ϵ_{dt} is the error.

$$Y_{dt} = \alpha + \lambda_d + \gamma_t + \beta X_{dt} + \epsilon_{dt}$$

$$Y_{dt} = \alpha + \lambda_d + \gamma_t + \beta_1 X_{dt} + \beta_2 X_{d,t-1} + \epsilon_{dt}$$

$$Y_{dt} = \alpha + \lambda_d + \gamma_t + \beta_1 X_{dt} + \beta_2 X_{d,t-1} + \beta_3 X_{d,t-2} + \epsilon_{dt}$$

2.3 Dependent Variable: Household Income

2.3.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Household Income | | |
|-----------------------|--------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.0260 (0.0266) | 0.0263 (0.0252) | 0.0254 (0.0264) |
| SPEI (Lag 1) | | -0.0201 (0.0505) | -0.0199 (0.0496) |
| SPEI (Lag 2) | | | -0.0174 (0.0522) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.95771 | 0.95775 | 0.95778 |
| Within R ² | 0.00175 | 0.00273 | 0.00344 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.3.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Household Income | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.1165 (0.0908) | -0.1618 (0.1105) | -0.1685 (0.1155) |
| SPEI Share (Lag 1) | | -0.2229 (0.1517) | -0.2596 (0.1846) |
| SPEI Share (Lag 2) | | | -0.2104 (0.1685) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.95781 | 0.95839 | 0.95888 |
| Within R ² | 0.00413 | 0.01776 | 0.02941 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.3.3 Regressed on: Agricultural Stress

| Dependent Variable: | Household Income | | |
|-----------------------|-----------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.0047 (0.0666) | -0.0222 (0.0622) | -0.0228 (0.0612) |
| Agric. Stress (Lag 1) | | 0.0717 (0.0819) | 0.0743 (0.0736) |
| Agric. Stress (Lag 2) | | | -0.0202 (0.1024) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.95764 | 0.95776 | 0.95777 |
| Within R ² | 1.42×10^{-5} | 0.00285 | 0.00300 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.3.4 Regressed on: Temperature

| Dependent Variable: | Household Income | | |
|-----------------------|--------------------|--------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.0971 (0.0676) | 0.0944 (0.0684) | 0.0955 (0.0698) |
| Temp. (Lag 1) | | 0.0133 (0.0326) | -0.0002 (0.0205) |
| Temp. (Lag 2) | | | 0.0150 (0.0230) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.95785 | 0.95791 | 0.95798 |
| Within R ² | 0.00499 | 0.00633 | 0.00809 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.4 Dependent Variable: Household Agricultural Income

2.4.1 Regressed on: Drought Index (SPEI)

| Model: | (1) | (2) | (3) |
|-----------------------|--------------------|--------------------|--------------------|
| <i>Variables</i> | | | |
| SPEI | 0.2773 (0.2633) | 0.2786 (0.2720) | 0.2814 (0.2893) |
| SPEI (Lag 1) | | 0.0586 (0.2790) | 0.0572 (0.2737) |
| SPEI (Lag 2) | | | 0.0400 (0.2727) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 197 | 197 | 197 |
| R ² | 0.71669 | 0.71680 | 0.71685 |
| Within R ² | 0.00952 | 0.00992 | 0.01009 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.4.2 Regressed on: Share of observations of SPEI above +1

| Model: | (1) | (2) | (3) |
|-----------------------|---------------------|---------------------|----------------------|
| <i>Variables</i> | | | |
| SPEI Share | -0.3389 (0.4318) | -0.3282 (0.4687) | -0.3893 (0.4920) |
| SPEI Share (Lag 1) | | 0.0552 (0.7967) | -0.1080 (0.8750) |
| SPEI Share (Lag 2) | | | -0.8570* (0.4538) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 197 | 197 | 197 |
| R ² | 0.71444 | 0.71445 | 0.71667 |
| Within R ² | 0.00166 | 0.00170 | 0.00946 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.4.3 Regressed on: Agricultural Stress

| Dependent Variable: | Household Agricultural Income | | |
|-----------------------|-------------------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.1955 (0.5152) | -0.2022 (0.5525) | -0.1393 (0.6256) |
| Agric. Stress (Lag 1) | | 1.055 (0.9886) | 1.193 (0.9930) |
| Agric. Stress (Lag 2) | | | -1.510 (0.8763) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 197 | 197 | 197 |
| R ² | 0.71419 | 0.71963 | 0.72936 |
| Within R ² | 0.00080 | 0.01981 | 0.05383 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.4.4 Regressed on: Temperature

| Dependent Variable: | Household Agricultural Income | | |
|-----------------------|-------------------------------|---------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.1293 (0.2379) | 0.1306 (0.2456) | 0.1360 (0.2339) |
| Temp. (Lag 1) | | -0.0064 (0.0712) | 0.1104* (0.0564) |
| Temp. (Lag 2) | | | -0.1301** (0.0544) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 197 | 197 | 197 |
| R ² | 0.71409 | 0.71410 | 0.71610 |
| Within R ² | 0.00045 | 0.00047 | 0.00748 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.5 Dependent Variable: Gross Agricultural Output

2.5.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Gross Agricultural Output | | |
|-----------------------|---------------------------|--------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.0578 (0.0556) | 0.0597 (0.0519) | 0.0666 (0.0544) |
| SPEI (Lag 1) | | 0.0986 (0.0580) | 0.0994* (0.0545) |
| SPEI (Lag 2) | | | 0.1435* (0.0744) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97508 | 0.97550 | 0.97640 |
| Within R ² | 0.00561 | 0.02268 | 0.05855 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.5.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Gross Agricultural Output | | |
|-----------------------|---------------------------|--------------------|--------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | 0.1182 (0.1120) | 0.1643 (0.1325) | 0.1763 (0.1352) |
| SPEI Share (Lag 1) | | 0.2021 (0.1329) | 0.2415 (0.1372) |
| SPEI Share (Lag 2) | | | 0.1923 (0.1527) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97502 | 0.97522 | 0.97540 |
| Within R ² | 0.00316 | 0.01144 | 0.01864 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.5.3 Regressed on: Agricultural Stress

| Dependent Variable: | Gross Agricultural Output | | |
|-----------------------|---------------------------|--------------------|--------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | 0.3104 (0.1892) | 0.2930 (0.1719) | 0.2932 (0.1746) |
| Agric. Stress (Lag 1) | | 0.2321 (0.1415) | 0.2317 (0.1351) |
| Agric. Stress (Lag 2) | | | 0.0070 (0.1898) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97572 | 0.97617 | 0.97617 |
| Within R ² | 0.03148 | 0.04908 | 0.04909 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.5.4 Regressed on: Temperature

| Dependent Variable: | Gross Agricultural Output | | |
|-----------------------|---------------------------|---------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.0568 (0.0720) | 0.0550 (0.0775) | 0.1154* (0.0588) |
| Temp. (Lag 1) | | -0.0235 (0.1200) | 0.0049 (0.1205) |
| Temp. (Lag 2) | | | 0.2403*** (0.0733) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97497 | 0.97497 | 0.97548 |
| Within R ² | 0.00120 | 0.00140 | 0.02182 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.6 Dependent Variable: Household food Consumption

2.6.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Household food Consumption | | |
|-----------------------|----------------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.0400 (0.0943) | 0.0407 (0.0950) | 0.0393 (0.0952) |
| SPEI (Lag 1) | | -0.0648 (0.0517) | -0.0645 (0.0522) |
| SPEI (Lag 2) | | | -0.0296 (0.1102) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.90580 | 0.90611 | 0.90617 |
| Within R ² | 0.00133 | 0.00465 | 0.00531 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.6.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Household food Consumption | | |
|-----------------------|----------------------------|---------------------|----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.0860 (0.1944) | -0.1811 (0.2304) | -0.1932 (0.2334) |
| SPEI Share (Lag 1) | | -0.4673 (0.2695) | -0.5340* (0.2667) |
| SPEI Share (Lag 2) | | | -0.3819 (0.3588) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.90574 | 0.90757 | 0.90875 |
| Within R ² | 0.00073 | 0.02016 | 0.03261 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.6.3 Regressed on: Agricultural Stress

| Dependent Variable: | Household food Consumption | | |
|-----------------------|----------------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.0214 (0.2026) | 0.0082 (0.1772) | 0.0074 (0.1811) |
| Agric. Stress (Lag 1) | | -0.1217 (0.1475) | -0.1182 (0.1280) |
| Agric. Stress (Lag 2) | | | -0.0270 (0.1968) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.90568 | 0.90593 | 0.90594 |
| Within R ² | 9.36×10^{-5} | 0.00274 | 0.00283 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.6.4 Regressed on: Temperature

| Dependent Variable: | Household food Consumption | | |
|-----------------------|----------------------------|---------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.0666 (0.2338) | 0.0762 (0.2367) | 0.0787 (0.2407) |
| Temp. (Lag 1) | | -0.0469 (0.0307) | -0.0776** (0.0302) |
| Temp. (Lag 2) | | | 0.0341 (0.0259) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (20) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 220 | 220 | 220 |
| R ² | 0.90574 | 0.90626 | 0.90654 |
| Within R ² | 0.00076 | 0.00621 | 0.00917 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.7 Dependent Variable: Grains Harvest

2.7.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Grains Harvest | | |
|-----------------------|------------------------|------------------------|------------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | -0.4503*** (0.1064) | -0.4573*** (0.1065) | -0.4691*** (0.1071) |
| SPEI (Lag 1) | | -0.2992** (0.1010) | -0.3025** (0.1207) |
| SPEI (Lag 2) | | | -0.2425* (0.1214) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.94570 | 0.94719 | 0.94817 |
| Within R ² | 0.05653 | 0.08245 | 0.09939 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.7.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Grains Harvest | | |
|-----------------------|-----------------------|------------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.7772** (0.2690) | -0.9705*** (0.2807) | -1.008*** (0.2698) |
| SPEI Share (Lag 1) | | -0.8358** (0.3403) | -1.012** (0.3457) |
| SPEI Share (Lag 2) | | | -0.9098** (0.4027) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.94375 | 0.94509 | 0.94660 |
| Within R ² | 0.02257 | 0.04590 | 0.07212 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.7.3 Regressed on: Agricultural Stress

| Model: | Dependent Variable: Grains Harvest | | |
|-----------------------|------------------------------------|-----------------------|-----------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -1.178*** (0.3036) | -1.127*** (0.2822) | -1.148*** (0.2822) |
| Agric. Stress (Lag 1) | | -0.8049* (0.4269) | -0.7895* (0.4338) |
| Agric. Stress (Lag 2) | | | -0.5241 (0.4429) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.94656 | 0.94848 | 0.94914 |
| Within R ² | 0.07144 | 0.10475 | 0.11627 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.7.4 Regressed on: Temperature

| Model: | Dependent Variable: Grains Harvest | | |
|-----------------------|------------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | -0.1116 (0.2034) | -0.1260 (0.2061) | -0.2292 (0.2332) |
| Temp. (Lag 1) | | -0.1923 (0.3123) | -0.2413 (0.3223) |
| Temp. (Lag 2) | | | -0.4141 (0.2432) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.94249 | 0.94262 | 0.94320 |
| Within R ² | 0.00077 | 0.00298 | 0.01312 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.8 Dependent Variable: Vegetables Harvest

2.8.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Vegetables Harvest | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | -0.1150 (0.0697) | -0.1191 (0.0697) | -0.1240 (0.0725) |
| SPEI (Lag 1) | | -0.2078 (0.1572) | -0.2084 (0.1617) |
| SPEI (Lag 2) | | | -0.1035 (0.0929) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.95674 | 0.95738 | 0.95753 |
| Within R ² | 0.00428 | 0.01891 | 0.02251 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.8.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Vegetables Harvest | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.1733 (0.1950) | -0.2713 (0.1901) | -0.2927 (0.1953) |
| SPEI Share (Lag 1) | | -0.4297 (0.3137) | -0.5002 (0.3758) |
| SPEI Share (Lag 2) | | | -0.3438 (0.2918) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.95661 | 0.95693 | 0.95712 |
| Within R ² | 0.00131 | 0.00854 | 0.01298 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.8.3 Regressed on: Agricultural Stress

| Dependent Variable: | Vegetables Harvest | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.4713 (0.4783) | -0.4391 (0.4584) | -0.4430 (0.4604) |
| Agric. Stress (Lag 1) | | -0.4302 (0.5232) | -0.4229 (0.5081) |
| Agric. Stress (Lag 2) | | | -0.1363 (0.3874) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.95716 | 0.95767 | 0.95771 |
| Within R ² | 0.01401 | 0.02568 | 0.02661 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.8.4 Regressed on: Temperature

| Dependent Variable: | Vegetables Harvest | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | -0.1386 (0.1596) | -0.1443 (0.1766) | -0.1537 (0.2011) |
| Temp. (Lag 1) | | -0.0755 (0.2847) | -0.0799 (0.3077) |
| Temp. (Lag 2) | | | -0.0372 (0.2512) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.95662 | 0.95663 | 0.95664 |
| Within R ² | 0.00138 | 0.00178 | 0.00187 |

Clustered (District) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.9 Dependent Variable: Fruits Harvest

2.9.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Fruits Harvest | | |
|-----------------------|--------------------|--------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.2105 (0.1612) | 0.2145 (0.1631) | 0.2239 (0.1622) |
| SPEI (Lag 1) | | 0.2010 (0.1169) | 0.2022* (0.1042) |
| SPEI (Lag 2) | | | 0.1975 (0.1402) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.91392 | 0.91480 | 0.91565 |
| Within R ² | 0.01062 | 0.02073 | 0.03042 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.9.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Fruits Harvest | | |
|-----------------------|--------------------|----------------------|----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | 0.6161 (0.3458) | 0.8515** (0.2807) | 0.8986** (0.2913) |
| SPEI Share (Lag 1) | | 1.033** (0.3621) | 1.188** (0.4138) |
| SPEI Share (Lag 2) | | | 0.7552* (0.4113) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.91406 | 0.91675 | 0.91813 |
| Within R ² | 0.01223 | 0.04308 | 0.05892 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.9.3 Regressed on: Agricultural Stress

| Dependent Variable: | Fruits Harvest | | |
|-----------------------|----------------------|-----------------------|----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | 0.6220** (0.2250) | 0.5760*** (0.1782) | 0.5885** (0.1992) |
| Agric. Stress (Lag 1) | | 0.6142* (0.3383) | 0.5907* (0.3034) |
| Agric. Stress (Lag 2) | | | 0.4338 (0.3242) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.91457 | 0.91610 | 0.91670 |
| Within R ² | 0.01802 | 0.03561 | 0.04253 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.9.4 Regressed on: Temperature

| Dependent Variable: | Fruits Harvest | | |
|-----------------------|--------------------|--------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.1117 (0.3286) | 0.1123 (0.3298) | 0.1934 (0.3155) |
| Temp. (Lag 1) | | 0.0076 (0.1958) | 0.0458 (0.2025) |
| Temp. (Lag 2) | | | 0.3225* (0.1467) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.91306 | 0.91306 | 0.91352 |
| Within R ² | 0.00066 | 0.00067 | 0.00591 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.10 Dependent Variable: Potatoes Harvest

2.10.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Potatoes Harvest | | |
|-----------------------|---------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | -0.0864 (0.0585) | -0.0913 (0.0683) | -0.0931 (0.0699) |
| SPEI (Lag 1) | | -0.2477 (0.1406) | -0.2479 (0.1438) |
| SPEI (Lag 2) | | | -0.0391 (0.0848) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97357 | 0.97447 | 0.97449 |
| Within R ² | 0.00395 | 0.03787 | 0.03871 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.10.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Potatoes Harvest | | |
|-----------------------|---------------------|-----------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.3500 (0.2041) | -0.5348* (0.2540) | -0.5406* (0.2604) |
| SPEI Share (Lag 1) | | -0.8109** (0.3189) | -0.8300** (0.3329) |
| SPEI Share (Lag 2) | | | -0.0928 (0.2677) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97369 | 0.97481 | 0.97482 |
| Within R ² | 0.00872 | 0.05073 | 0.05126 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.10.3 Regressed on: Agricultural Stress

| Model: | Dependent Variable: Potatoes Harvest | | |
|-----------------------|--------------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.0492 (0.2602) | -0.0179 (0.2506) | -0.0237 (0.2470) |
| Agric. Stress (Lag 1) | | -0.4188 (0.3375) | -0.4078 (0.3346) |
| Agric. Stress (Lag 2) | | | -0.2020 (0.1600) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97347 | 0.97395 | 0.97403 |
| Within R ² | 0.00025 | 0.01831 | 0.02162 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.10.4 Regressed on: Temperature

| Model: | Dependent Variable: Potatoes Harvest | | |
|-----------------------|--------------------------------------|--------------------|--------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.0188 (0.1026) | 0.0361 (0.1132) | 0.1030 (0.1501) |
| Temp. (Lag 1) | | 0.2291 (0.1470) | 0.2607 (0.1665) |
| Temp. (Lag 2) | | | 0.2664 (0.1743) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.97346 | 0.97362 | 0.97383 |
| Within R ² | 4.14×10^{-5} | 0.00597 | 0.01387 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.11 Dependent Variable: Grains Yield

2.11.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Grains Yield | | |
|-----------------------|------------------------|------------------------|------------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | -0.2324*** (0.0584) | -0.2349*** (0.0563) | -0.2379*** (0.0524) |
| SPEI (Lag 1) | | -0.1082 (0.0719) | -0.1090 (0.0768) |
| SPEI (Lag 2) | | | -0.0598 (0.0758) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.78380 | 0.78558 | 0.78612 |
| Within R ² | 0.03533 | 0.04328 | 0.04569 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.11.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Grains Yield | | |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.4843** (0.2120) | -0.4983** (0.2098) | -0.5060** (0.2134) |
| SPEI Share (Lag 1) | | -0.0607 (0.2006) | -0.0972 (0.1848) |
| SPEI Share (Lag 2) | | | -0.1884 (0.2824) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.78048 | 0.78055 | 0.78114 |
| Within R ² | 0.02055 | 0.02084 | 0.02348 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.11.3 Regressed on: Agricultural Stress

| Dependent Variable: | Grains Yield | | |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.7051** (0.2239) | -0.7082** (0.2265) | -0.7031** (0.2256) |
| Agric. Stress (Lag 1) | | 0.0484 (0.2655) | 0.0446 (0.2562) |
| Agric. Stress (Lag 2) | | | 0.1299 (0.2151) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.78933 | 0.78940 | 0.78977 |
| Within R ² | 0.06004 | 0.06032 | 0.06198 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.11.4 Regressed on: Temperature

| Dependent Variable: | Grains Yield | | |
|-----------------------|--------------------|---------------------|----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.0868 (0.1574) | 0.0847 (0.1513) | -0.0005 (0.1551) |
| Temp. (Lag 1) | | -0.0277 (0.2003) | -0.0682 (0.2072) |
| Temp. (Lag 2) | | | -0.3419* (0.1569) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 191 | 191 | 191 |
| R ² | 0.77612 | 0.77615 | 0.77978 |
| Within R ² | 0.00110 | 0.00121 | 0.01743 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.12 Dependent Variable: Vegetables Yield

2.12.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Vegetables Yield | | |
|-----------------------|--------------------|---------------------|---------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.0175 (0.0438) | 0.0145 (0.0492) | 0.0092 (0.0508) |
| SPEI (Lag 1) | | -0.1505 (0.1425) | -0.1512 (0.1481) |
| SPEI (Lag 2) | | | -0.1108 (0.1046) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.81793 | 0.82015 | 0.82134 |
| Within R ² | 0.00016 | 0.01235 | 0.01890 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.12.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Vegetables Yield | | |
|-----------------------|--------------------|---------------------|--------------------------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | 0.0835 (0.1599) | 0.0650 (0.1552) | 0.0650 (0.1582) |
| SPEI Share (Lag 1) | | -0.0810 (0.1714) | -0.0810 (0.2072) |
| SPEI Share (Lag 2) | | | -5.39 × 10 ⁻⁵ (0.2109) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.81799 | 0.81806 | 0.81806 |
| Within R ² | 0.00048 | 0.00089 | 0.00089 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.12.3 Regressed on: Agricultural Stress

| Model: | Dependent Variable: Vegetables Yield | | |
|-----------------------|--------------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.3306 (0.3666) | -0.3029 (0.3502) | -0.3043 (0.3528) |
| Agric. Stress (Lag 1) | | -0.3705 (0.4208) | -0.3679 (0.4132) |
| Agric. Stress (Lag 2) | | | -0.0483 (0.2269) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.81989 | 0.82240 | 0.82243 |
| Within R ² | 0.01094 | 0.02469 | 0.02487 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.12.4 Regressed on: Temperature

| Model: | Dependent Variable: Vegetables Yield | | |
|-----------------------|--------------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | -0.0371 (0.1581) | -0.0314 (0.1647) | -0.0282 (0.1701) |
| Temp. (Lag 1) | | 0.0757 (0.1271) | 0.0772 (0.1386) |
| Temp. (Lag 2) | | | 0.0129 (0.1257) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.81793 | 0.81804 | 0.81805 |
| Within R ² | 0.00016 | 0.00079 | 0.00080 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.13 Dependent Variable: Fruits Yield

2.13.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Fruits Yield | | |
|-----------------------|--------------------|--------------------|--------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | 0.1856 (0.1434) | 0.1887 (0.1457) | 0.1952 (0.1438) |
| SPEI (Lag 1) | | 0.1567 (0.1054) | 0.1575 (0.0973) |
| SPEI (Lag 2) | | | 0.1367 (0.1568) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.79919 | 0.80052 | 0.80152 |
| Within R ² | 0.00881 | 0.01538 | 0.02034 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.13.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Fruits Yield | | |
|-----------------------|--------------------|----------------------|----------------------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | 0.5624 (0.3438) | 0.7888** (0.2894) | 0.8309** (0.3019) |
| SPEI Share (Lag 1) | | 0.9934** (0.3737) | 1.132** (0.4357) |
| SPEI Share (Lag 2) | | | 0.6764 (0.4382) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.79960 | 0.80578 | 0.80853 |
| Within R ² | 0.01088 | 0.04136 | 0.05493 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.13.3 Regressed on: Agricultural Stress

| Model: | Dependent Variable: Fruits Yield | | |
|-----------------------|----------------------------------|-----------------------|-----------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | 0.5254*** (0.1508) | 0.4862*** (0.1244) | 0.4959*** (0.1335) |
| Agric. Stress (Lag 1) | | 0.5233* (0.2771) | 0.5052* (0.2487) |
| Agric. Stress (Lag 2) | | | 0.3352 (0.2826) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.80018 | 0.80294 | 0.80384 |
| Within R ² | 0.01374 | 0.02737 | 0.03178 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.13.4 Regressed on: Temperature

| Model: | Dependent Variable: Fruits Yield | | |
|-----------------------|----------------------------------|---------------------|--------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | 0.1055 (0.2922) | 0.1050 (0.2914) | 0.1634 (0.2703) |
| Temp. (Lag 1) | | -0.0068 (0.1793) | 0.0207 (0.1890) |
| Temp. (Lag 2) | | | 0.2323 (0.1724) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.79753 | 0.79753 | 0.79812 |
| Within R ² | 0.00063 | 0.00063 | 0.00354 |

Clustered (District) standard-errors in parentheses

Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

2.14 Dependent Variable: Potatoes Yield

2.14.1 Regressed on: Drought Index (SPEI)

| Dependent Variable: | Potatoes Yield | | |
|-----------------------|----------------|----------|----------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI | -0.0961* | -0.1006 | -0.1018 |
| | (0.0434) | (0.0607) | (0.0622) |
| SPEI (Lag 1) | | -0.2282 | -0.2283 |
| | | (0.1451) | (0.1473) |
| SPEI (Lag 2) | | | -0.0243 |
| | | | (0.0680) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.80594 | 0.81511 | 0.81521 |
| Within R ² | 0.00795 | 0.05479 | 0.05532 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.14.2 Regressed on: Share of observations of SPEI above +1

| Dependent Variable: | Potatoes Yield | | |
|-----------------------|----------------|----------|----------|
| Model: | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| SPEI Share | -0.1459 | -0.2399 | -0.2216 |
| | (0.1639) | (0.1776) | (0.1901) |
| SPEI Share (Lag 1) | | -0.4124* | -0.3520* |
| | | (0.2125) | (0.1922) |
| SPEI Share (Lag 2) | | | 0.2948 |
| | | | (0.2023) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.80487 | 0.80833 | 0.81003 |
| Within R ² | 0.00247 | 0.02015 | 0.02882 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.14.3 Regressed on: Agricultural Stress

| Model: | Dependent Variable: Potatoes Yield | | |
|-----------------------|------------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Agric. Stress | -0.2087 (0.1711) | -0.1706 (0.1614) | -0.1728 (0.1598) |
| Agric. Stress (Lag 1) | | -0.5089 (0.3339) | -0.5048 (0.3311) |
| Agric. Stress (Lag 2) | | | -0.0758 (0.1075) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.80581 | 0.81430 | 0.81445 |
| Within R ² | 0.00730 | 0.05069 | 0.05145 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

2.14.4 Regressed on: Temperature

| Model: | Dependent Variable: Potatoes Yield | | |
|-----------------------|------------------------------------|--------------------|--------------------|
| | (1) | (2) | (3) |
| <i>Variables</i> | | | |
| Temp. | -0.0084 (0.0602) | 0.0049 (0.0696) | 0.0456 (0.0968) |
| Temp. (Lag 1) | | 0.1761 (0.1118) | 0.1953 (0.1248) |
| Temp. (Lag 2) | | | 0.1621 (0.1202) |
| <i>Fixed-effects</i> | | | |
| District (11) | Yes | Yes | Yes |
| Year (18) | Yes | Yes | Yes |
| <i>Fit statistics</i> | | | |
| Observations | 194 | 194 | 194 |
| R ² | 0.80439 | 0.80550 | 0.80644 |
| Within R ² | 1.36×10^{-5} | 0.00571 | 0.01047 |

Clustered (District) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*