Download and replication instructions for: "Geographically-resolved social cost of anthropogenic emissions accounting for both direct and climate-mediated effects"

Download the entire repository from Dataverse.
Unzip it into a directory; you may also need to unzip Code Directory.
Ultimately the file structure should look like:

Data/

📁 Aerosol Perturbations
📁 ClimateActionTracker Country Files
📁 Crops
📁 Data for Crop Projections
📁 Edgar
📁 Other
📁 Population
📁 Seasons

Other

🅁 Aerosol Perturbation Annual Data.Rdata
🅁 Aerosol Perturbation Monthly Climatologies.Rdata
🅁 Aerosol Perturbation Monthly Ensembles.Rdata
🅁 Aggregated Data.Rdata
🅁 Monthly Global Means.Rdata
🅁 Region and Vulnerability Data.Rdata
🅁 Region Data and Macros.Rdata
🅁 Region Masks.Rdata
🅁 Seasonality Data.Rdata

Code/

📁 AirPollutionImpactsResultsCrops
📁 aod_ag

Developer

📄 0 - Region Data and Macros.R
📄 1 - Process Perturbation Data.R
📄 2 - Process Region and Vulnerability Data.R
📄 3 - Aggregate Data.R
📄 4a - Seasonality Analysis.R
📄 4b - Seasonality Plots.R
📄 5a - Impact Analysis IMR.R
📄 5b - Impact Analysis Crops.R
📄 5c - Impact Analysis GDP.R
📄 6a - Baseline Plots.R
📄 6b - Impacts Plots.R
📄 6c - Distributions Plots.R
📄 7a - Partition Test - IMR.R
📄 7b - Partition Test - Crops.R
📄 7c - Partition Test - GDP.R
📄 7d - Crop_Climate_Plot.R
📄 8 - SCC Comparison.R
📄 8a - Get Emissions Ratios.R
📄 8b - Get Emissions Ratios Grid.R
📄 9 - Scaled Scenarios.R
📄 10 - Tables.R
📄 Replication.R

Replication.R is the main analysis file, and calls all the other .R scripts. See comments and instructions in Replication.R for more details, and comments throughout other files.

The underlying crop impacts estimation is not included in the Replication.R, but code can be found in aod_ag/ and AirPollutionImpactsResultsCrops/ directories. You may need to adjust some pathways within these directories if you want to re-run this code.

Contact jburney@ucsd.edu and Geeta.Persad@jsg.utexas.edu with any questions.