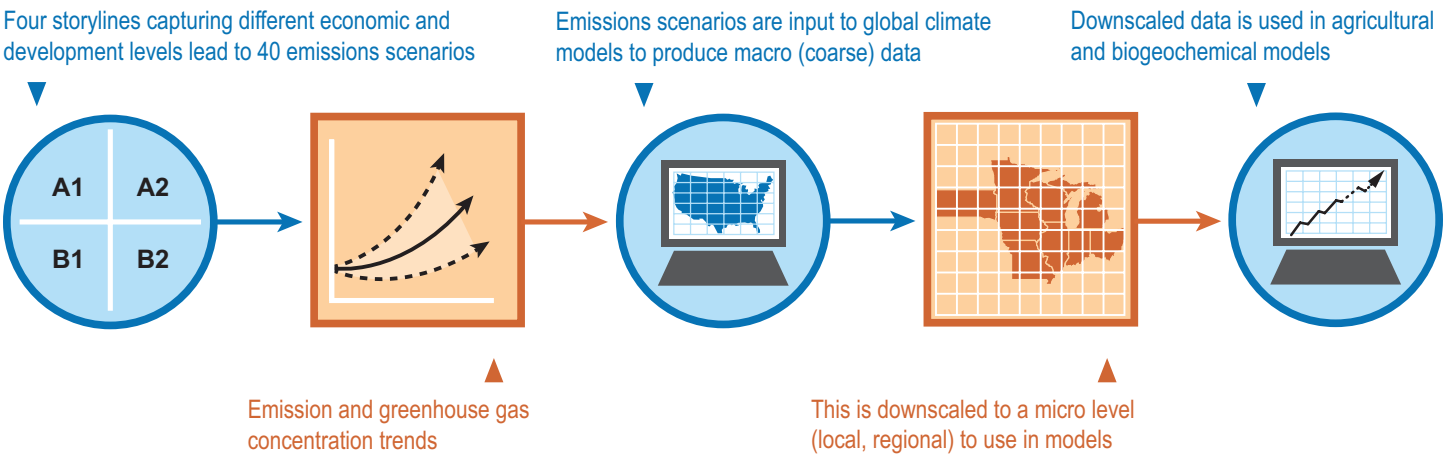
SUSTAINABLE CORN.ORG
CROPS, CLIMATE, CULTURE AND CHANGE

The **Climate and Corn-based Cropping Systems CAP (CSCAP)** is a transdisciplinary team creating new science and educational opportunities. The CSCAP seeks to increase resilience and adaptability of Midwest agriculture to more volatile weather patterns by identifying farmer practices and policies that increase sustainability while meeting crop demand.

CSCAP: INTEGRATING CLIMATE PROJECTIONS



Climate projections

- It is impossible to predict how global economy and society will evolve in the next century. Therefore, climate projections use a range of socio-economic storylines and emissions scenarios.
- There is no single best climate model. Applications should use results from several different climate models.
- Global climate models have coarse grids with spacings of 125 to 500 km (80 to 300 miles). Their results must be downscaled for use in agricultural applications.

Climate of the central United States

- One of the most pronounced changes in the climate of the central U.S. in the past few decades is an increase in the frequency of heavy rainfall.
- Summertime temperatures in the central U.S. have cooled while global temperatures have warmed – the region has been called a “warming hole.”
- Farmers already are adapting to climate change.

Climate in the CSCAP

- Investigators have access to archives of raw and downscaled climate model output.
- CSCAP interacts with other USDA sponsored projects and with national and international climate projects such as the U.S. National Climate Assessment and the Agricultural Model Intercomparison and Improvement Project (AgMIP).

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USDA United States Department of Agriculture National Institute of Food and Agriculture

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