



UNIVERSITY OF MINNESOTA EXTENSION

Driven to DiscoverSM

Climate Change Data For Minnesota

High-Resolution Climate Information and Dedicated Extension Programming to Accelerate Cross-Sector Resilience Efforts

Brenda Hoppe, PhD

Climate Prediction Applications Science Workshop

May 24, 2022

**Minnesota Climate
Adaptation Partnership**

UNIVERSITY OF MINNESOTA
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Minnesota Climate Adaptation Partnership

Supporting thriving communities and landscapes through collaboration, capacity building and advancing climate-informed decision-making.

University + State + Regional & Local Jurisdictions + Private & Public Entities



MCAP is the only multi-sector, statewide group working on climate adaptation

Current Steering Committee Members



Water Resources Center
UNIVERSITY OF MINNESOTA
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US Army Corps of Engineers.



DEPARTMENT OF NATURAL RESOURCES





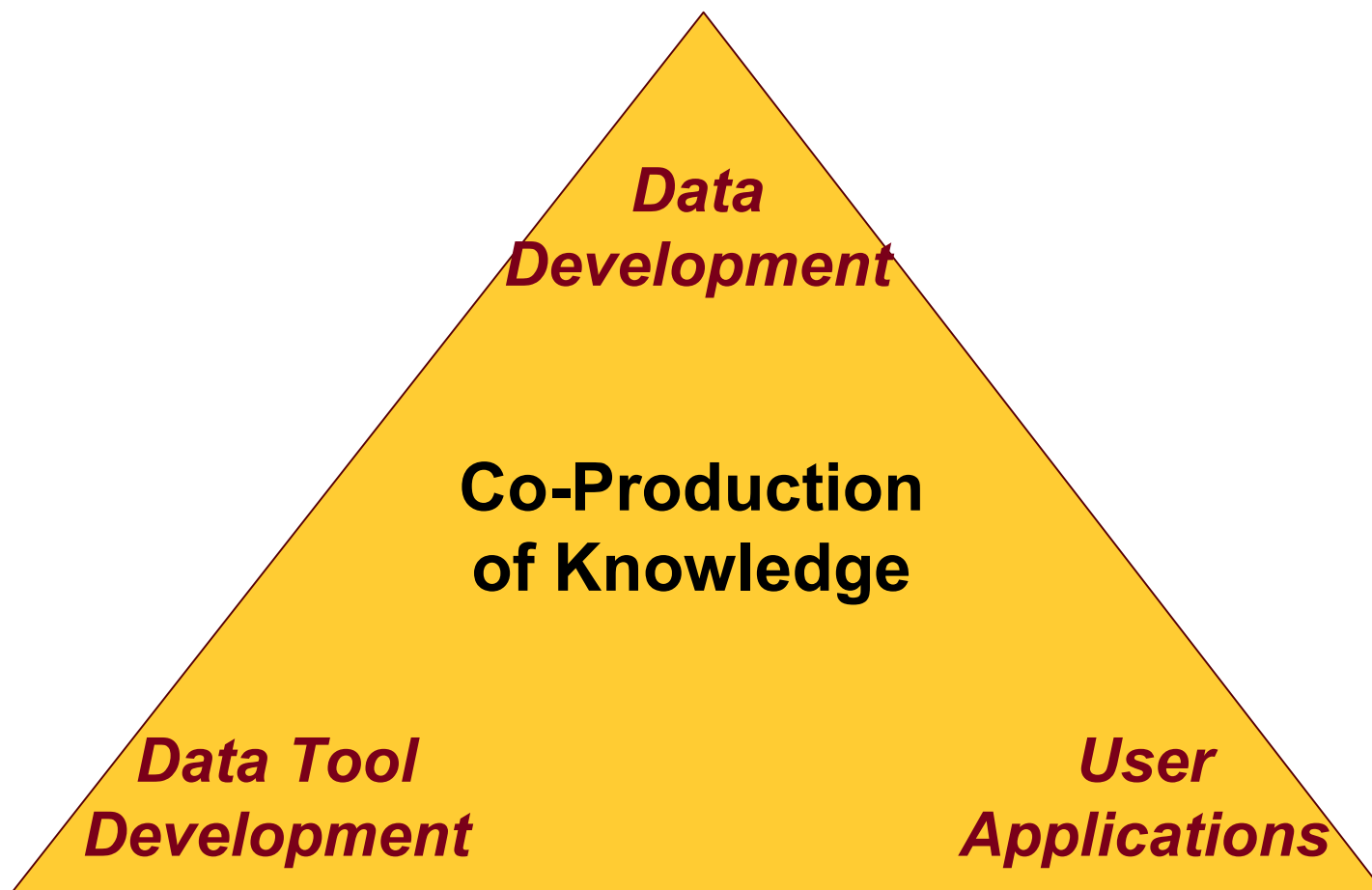
Climate Data Study

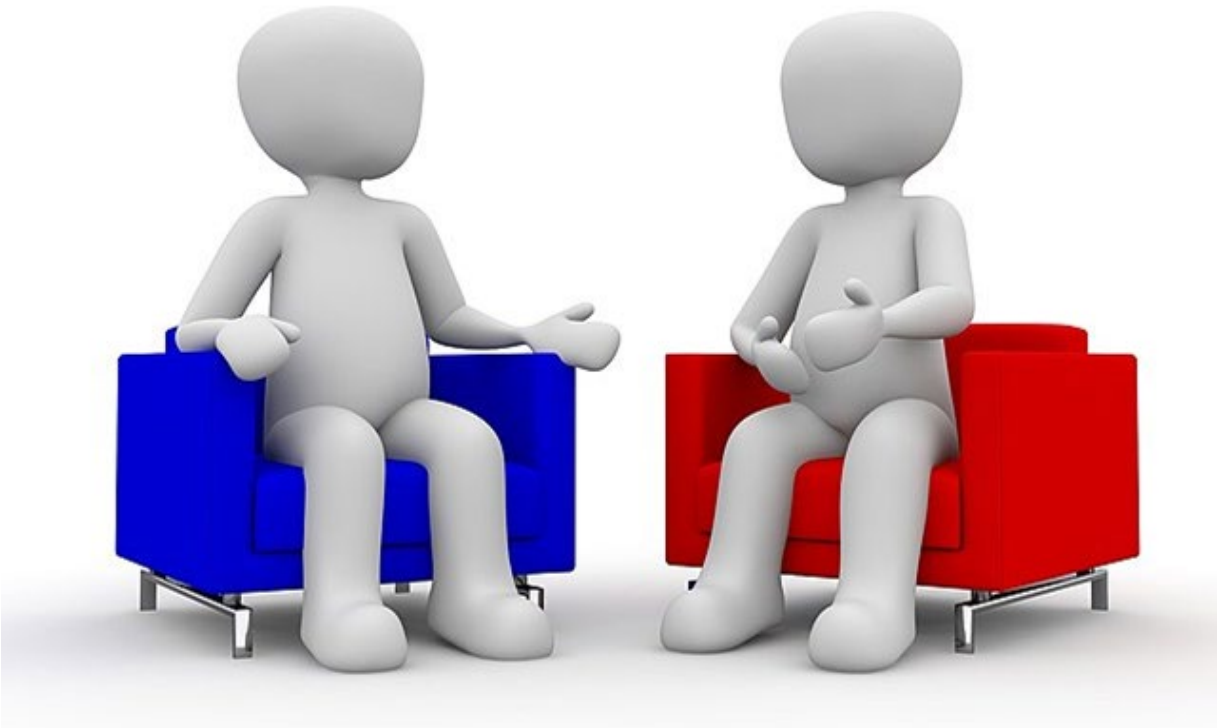
Supported by the MN State Legislature



Funds UMN & Extension to develop & deliver projected climate data, tools, and capacity-building for managing Minnesota's climate risks.

MN Climate Data Project: Modeling Minnesota's Future

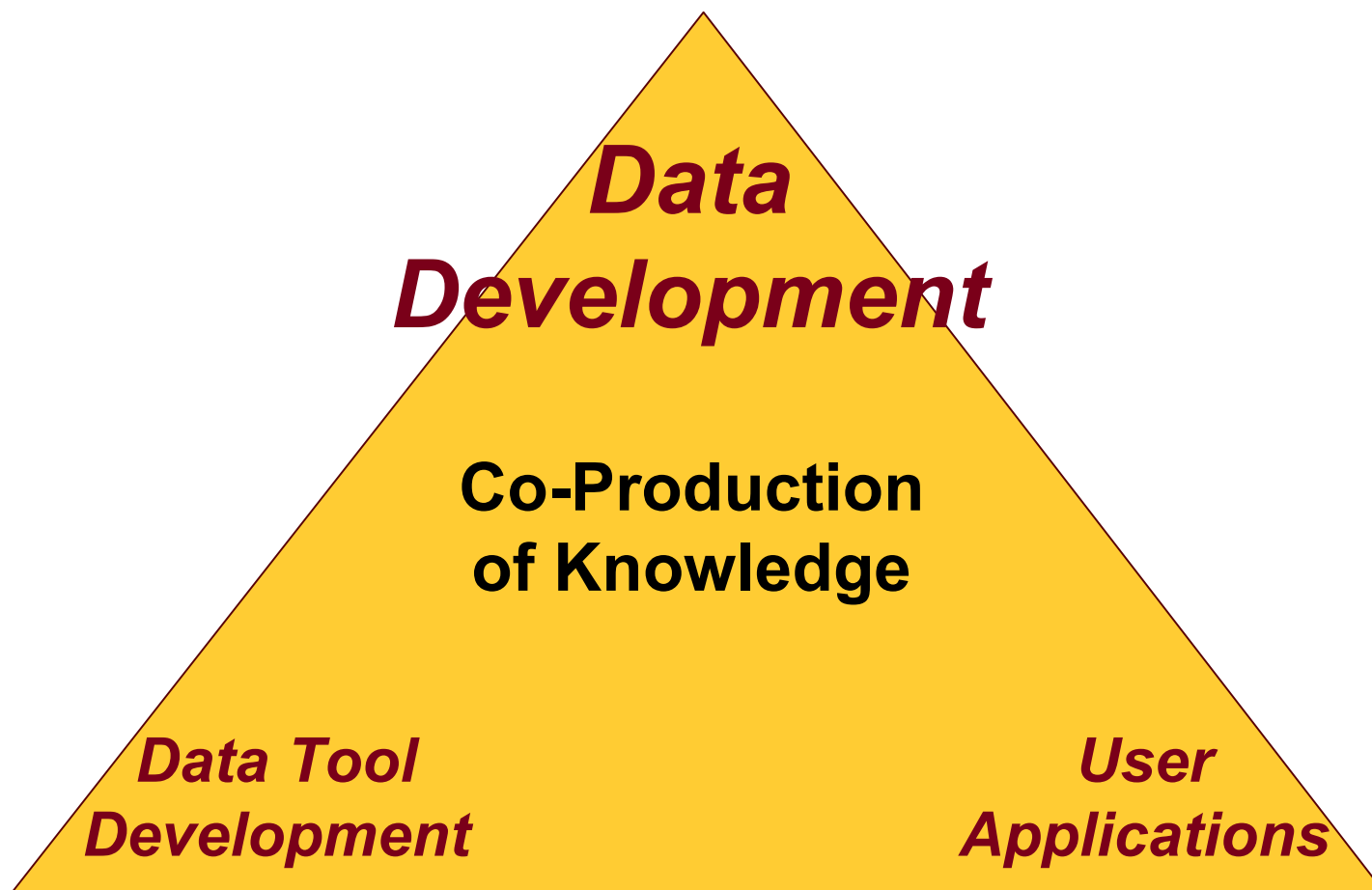




Co-Production of Knowledge

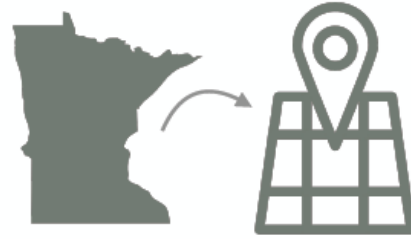
develops user confidence with data that are complex, nuanced and new.

MN Climate Data Project: Modeling Minnesota's Future

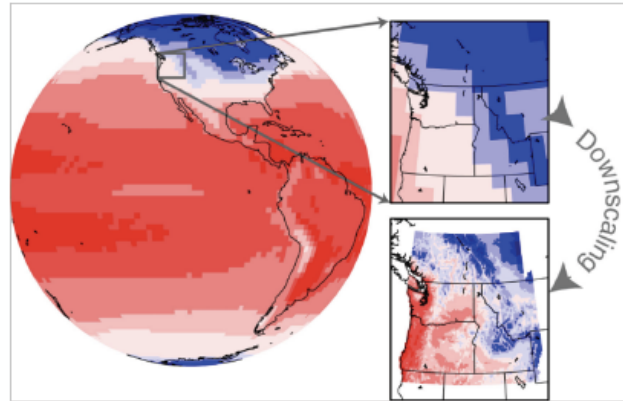


Climate Data Study

WHERE?



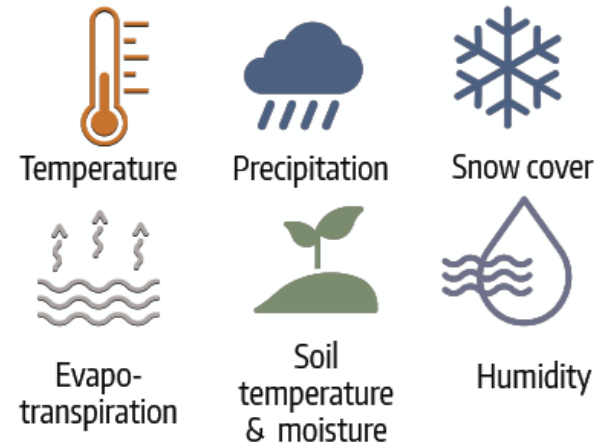
Focus on **Minnesota** at ~3x3 mile scale.

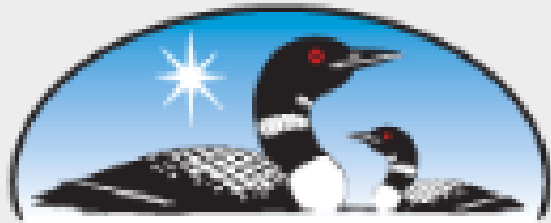


WHAT?

Dynamically downscaled projections from a model ensemble from GCMs to a higher spatial resolution using a regional climate model. We will use the Weather Research and Forecasting model to generate hourly averages for two future time steps. This will include a comprehensive lake model.

Data will be available for several variables, including:

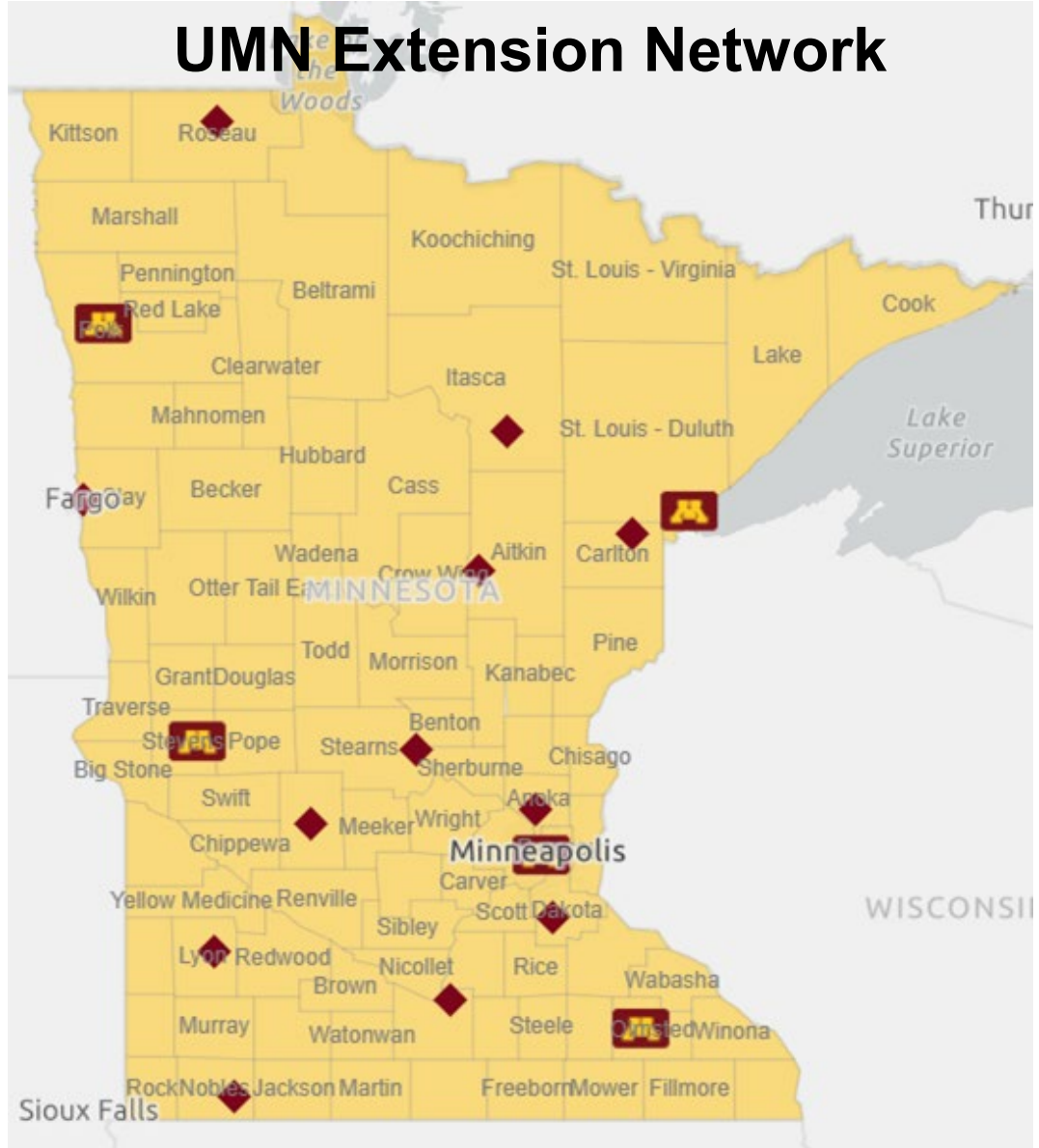




**ENVIRONMENT
AND NATURAL RESOURCES
TRUST FUND**

**\$875M to 1,800
projects around the
state...including the
MN Climate Data
Project!**





CLIMATE PROJECTION DATA FOR MINNESOTA



Pictures courtesy of the University of Minnesota Extension

Purpose:

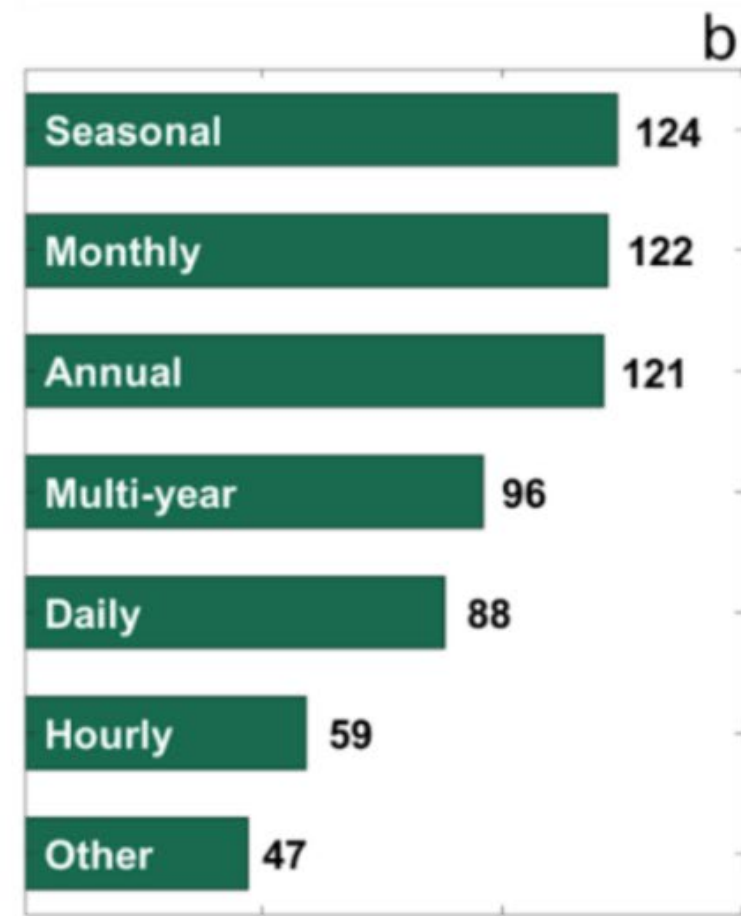
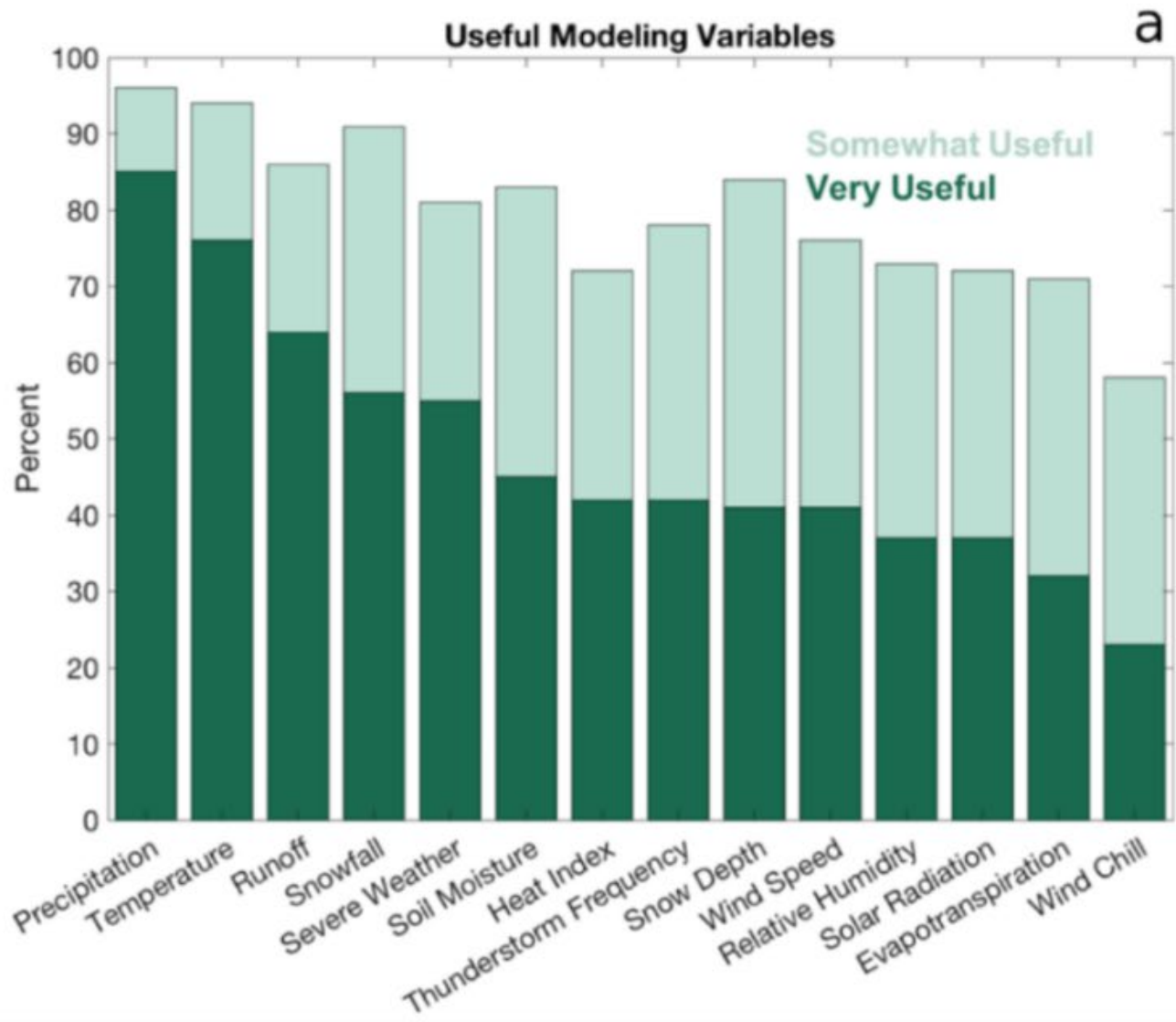
Understand climate projection data needs and uses

Respondents:

218

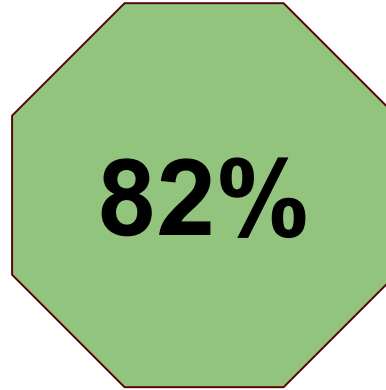
Sectors:

NGOs, agriculture, government,
academia,
private sector (building, engineering, etc)

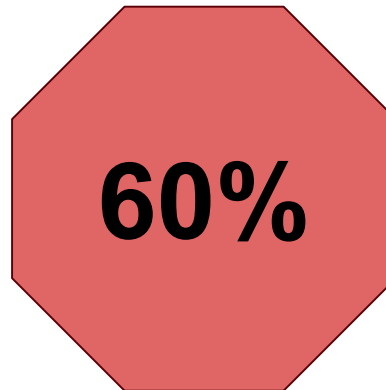


Survey responses indicate a clear need for both data and education.

Respondents for whom data are *somewhat* or *very* useful

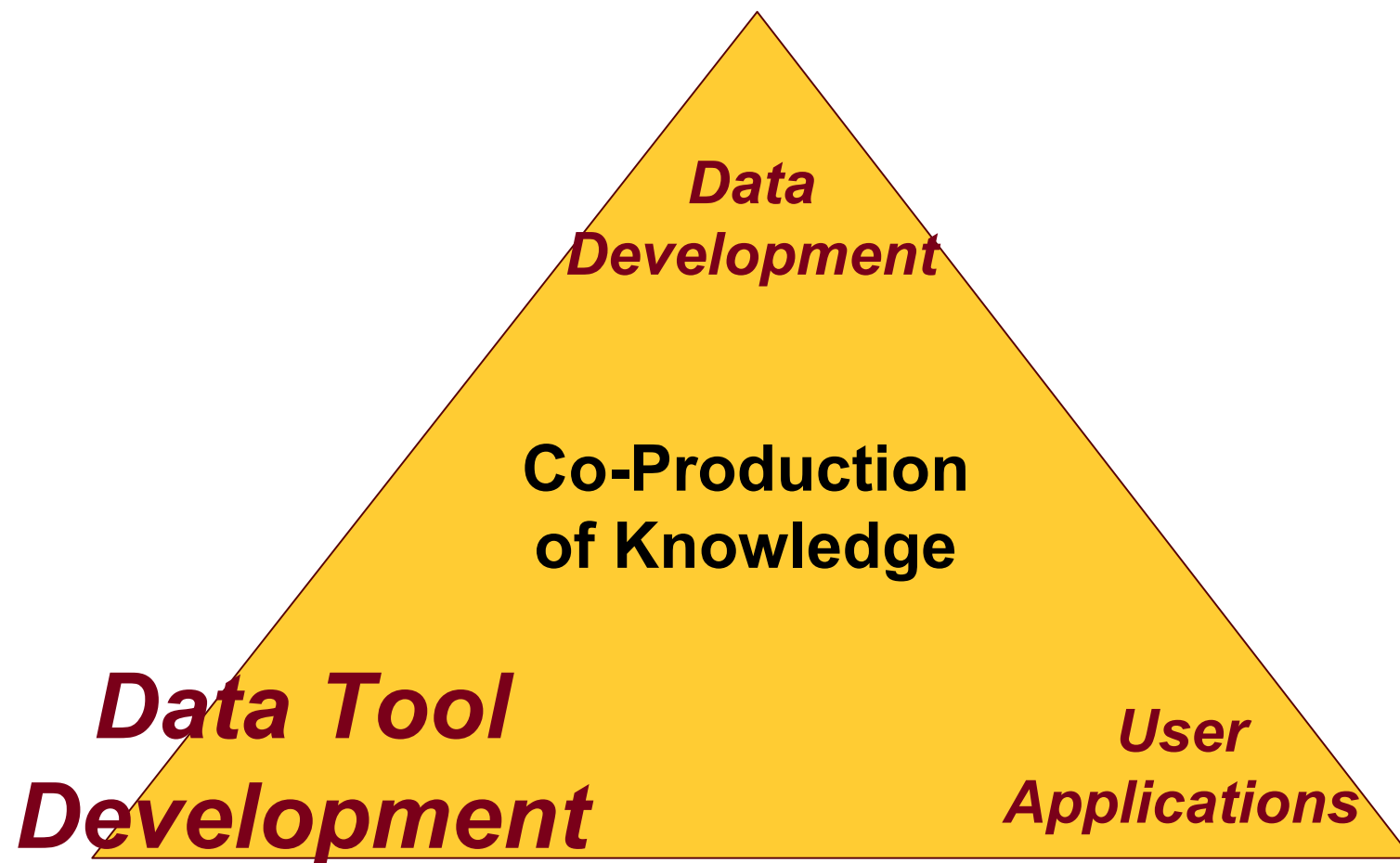


Respondents who had little or no prior understanding of these data



Opportunity for training, resources, and tools

MN Climate Data Project: Modeling Minnesota's Future

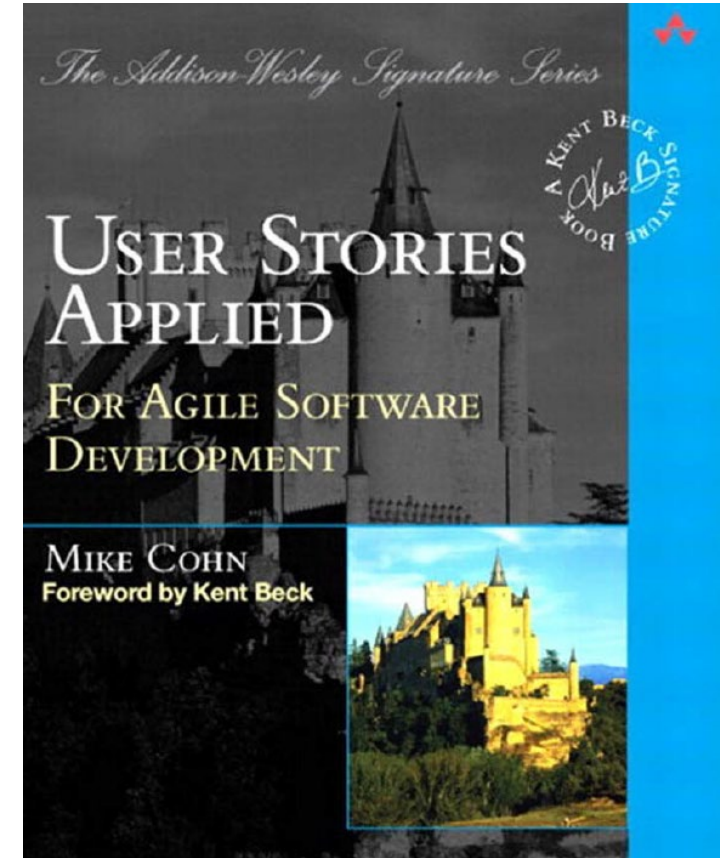


User stories are a short statement of what the user wishes to achieve in their own words.

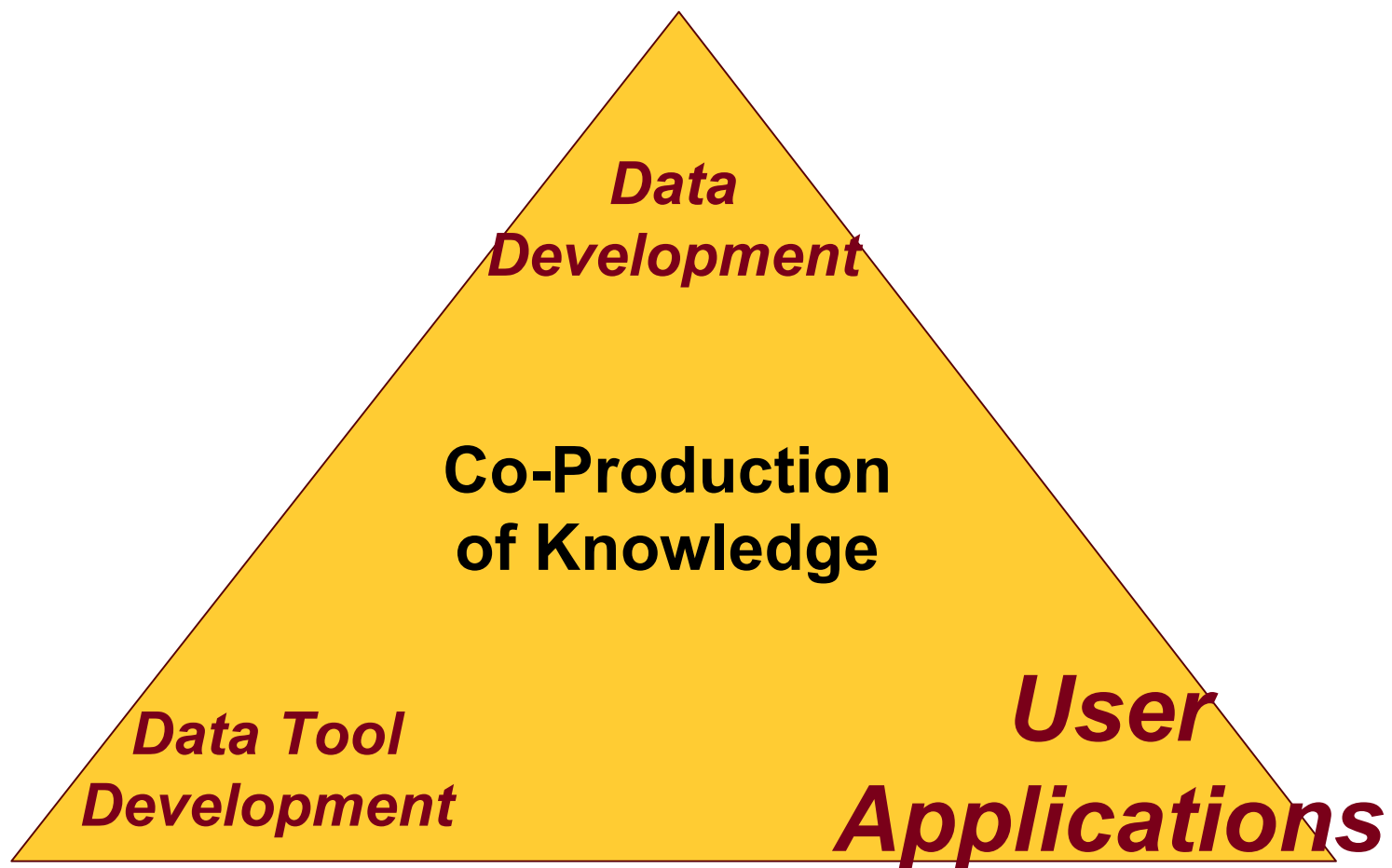
Usually contain 3 elements: User, Action, Benefit.

“As a _____ user, I want to _____ so that I can _____.”

For example, “As a potential customer, I want to read book reviews so I can decide which one to buy.”



MN Climate Data Project: Modeling Minnesota's Future





MN Climate Adaptation Study Circles



MINNESOTA LIBRARY
ASSOCIATION



Extension
Center for
Community Vitality



MCAP
Minnesota Climate Adaptation
Partnership

Connecting rural, suburban, urban and tribal communities with the University of Minnesota

- Extension is in **every county**. Regional offices are strategically located across the state.
- **65 percent** of Extension faculty and staff work in Greater Minnesota
- Over **35,000** trained volunteers multiply our reach





Thank you!
bhoppe@umn.edu

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