

Assessing local capacity for groundwater protection

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Spring Groundwater Conference
Minnesota Groundwater Association

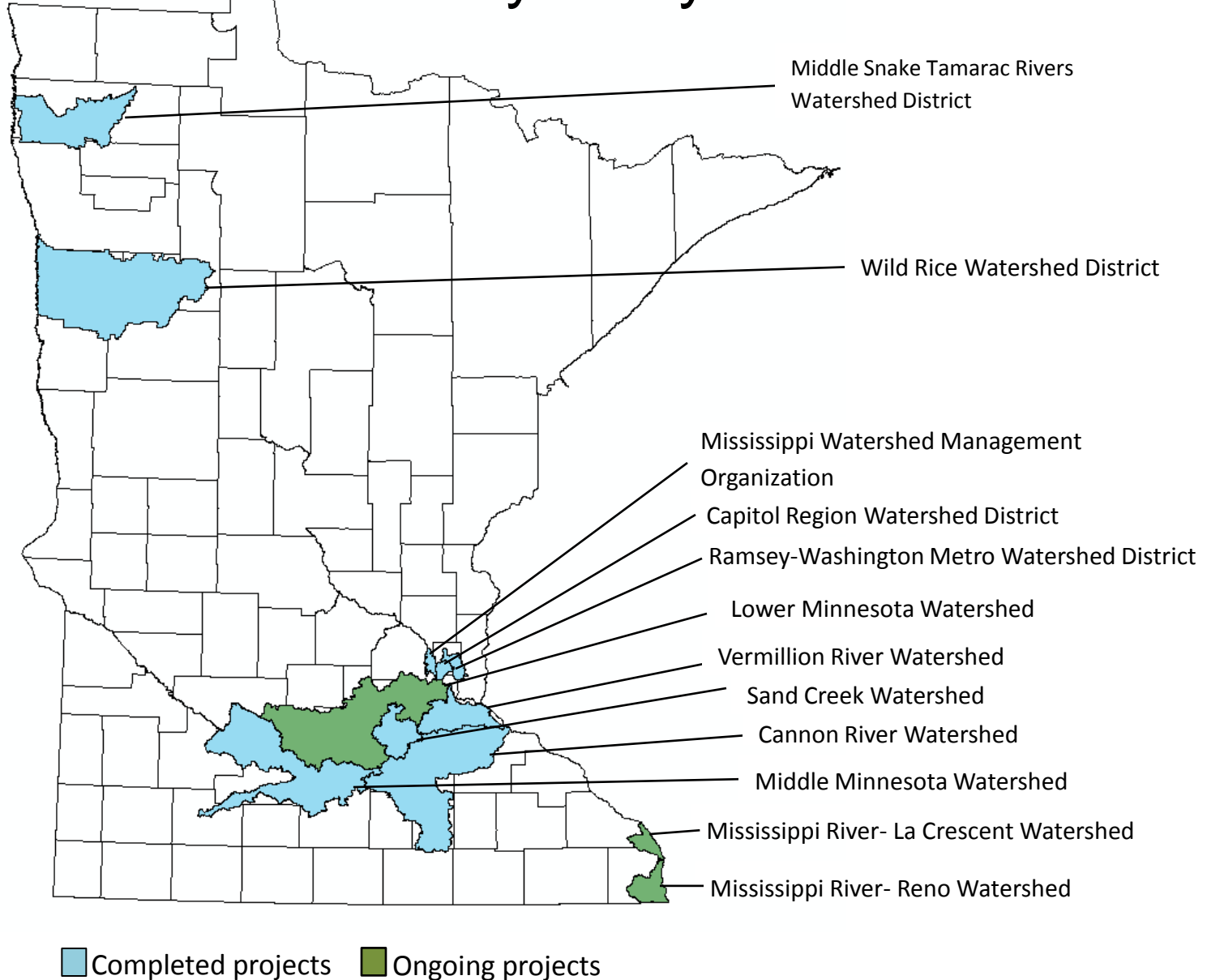


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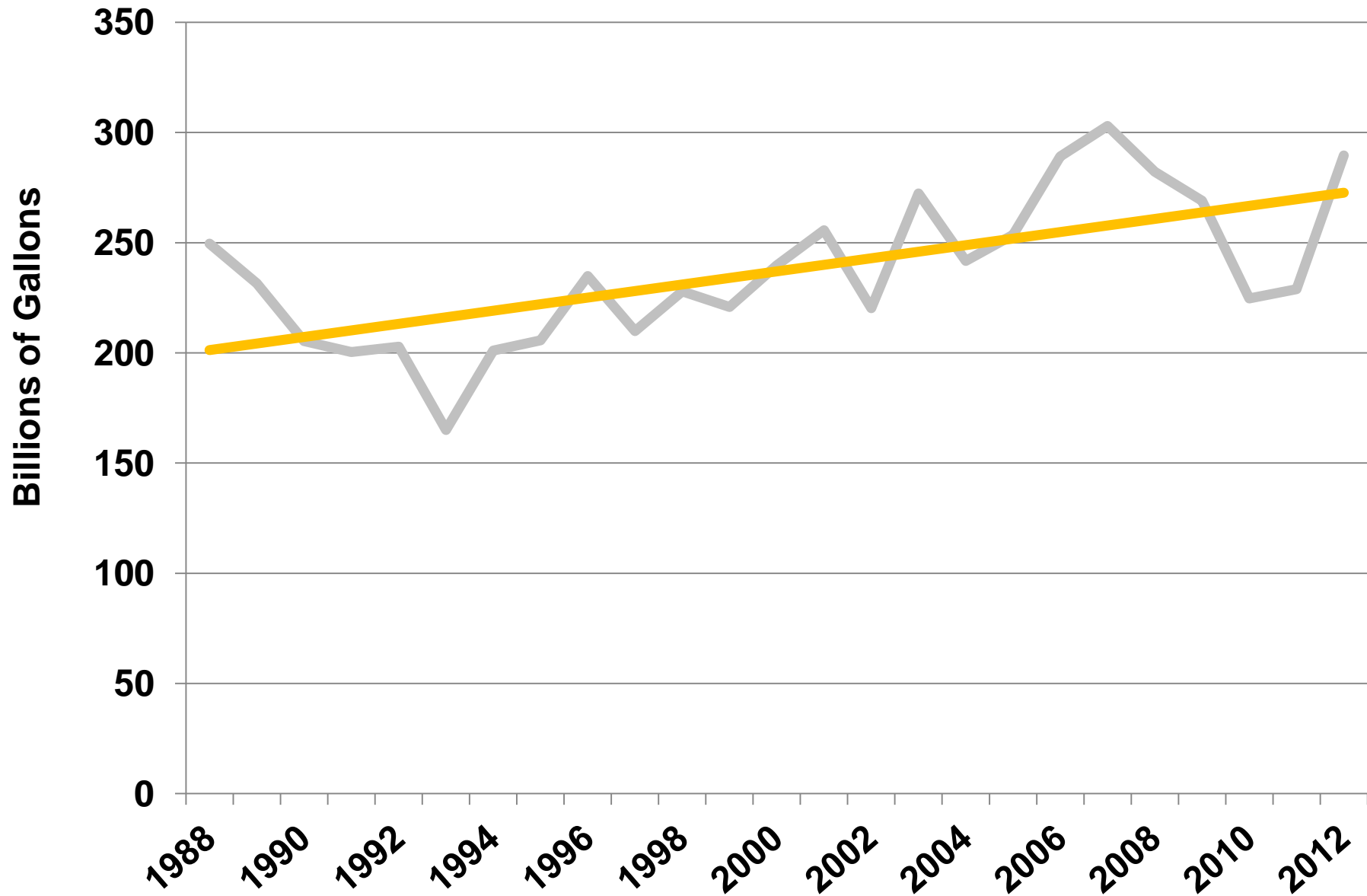
Driven to DiscoverSM

Center for Changing Landscapes Survey study sites



MINNESOTA GROUNDWATER CONCERNS

**INCREASING GROUNDWATER USE
POLLUTION**



What are the capacities and constraints associated with groundwater protection at the local level?

**What is
Community Capacity?**

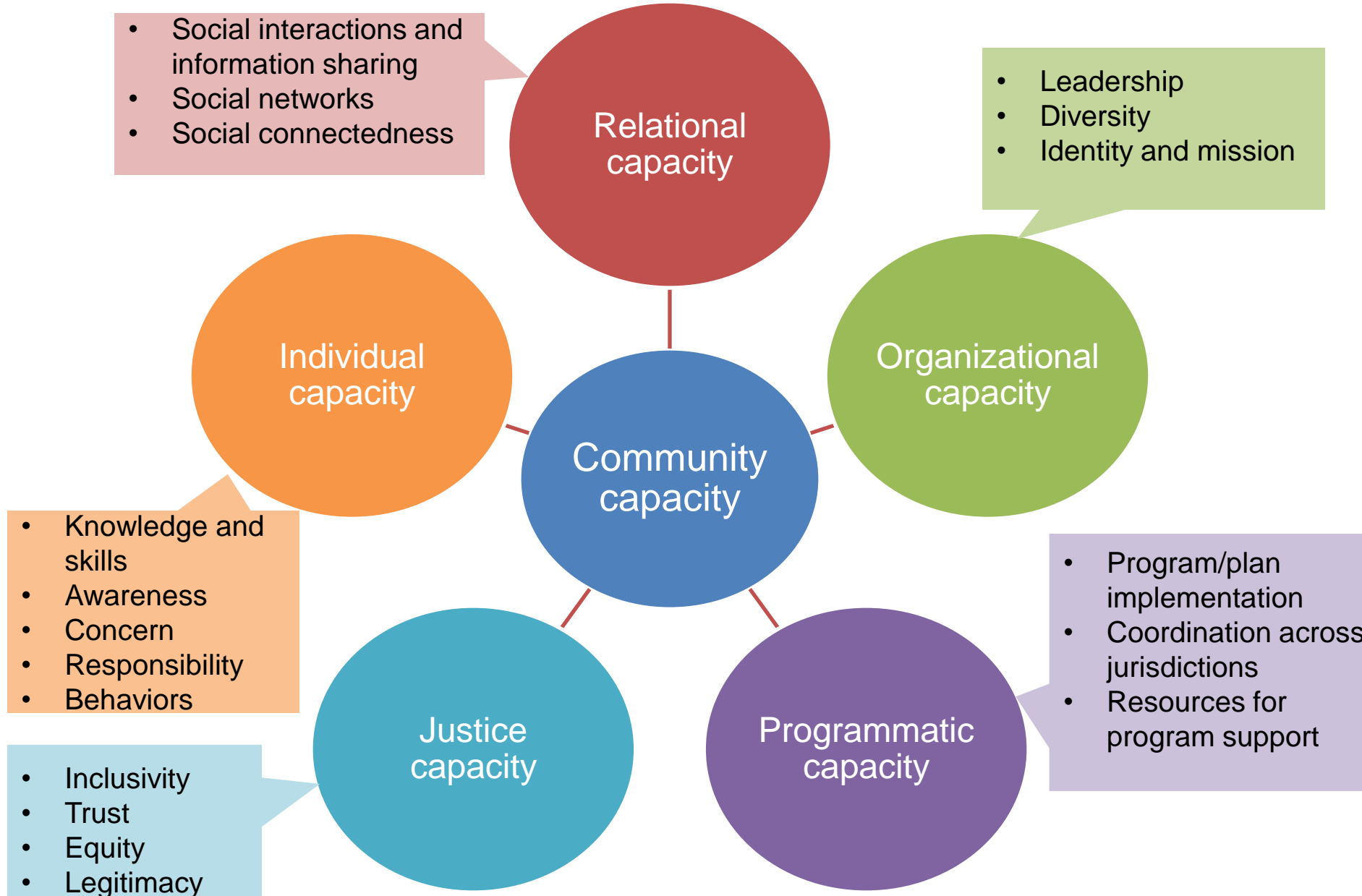
“The interaction

**of human capital, organizational
resources, and social capital
existing within a given community**

**that can be
leveraged**

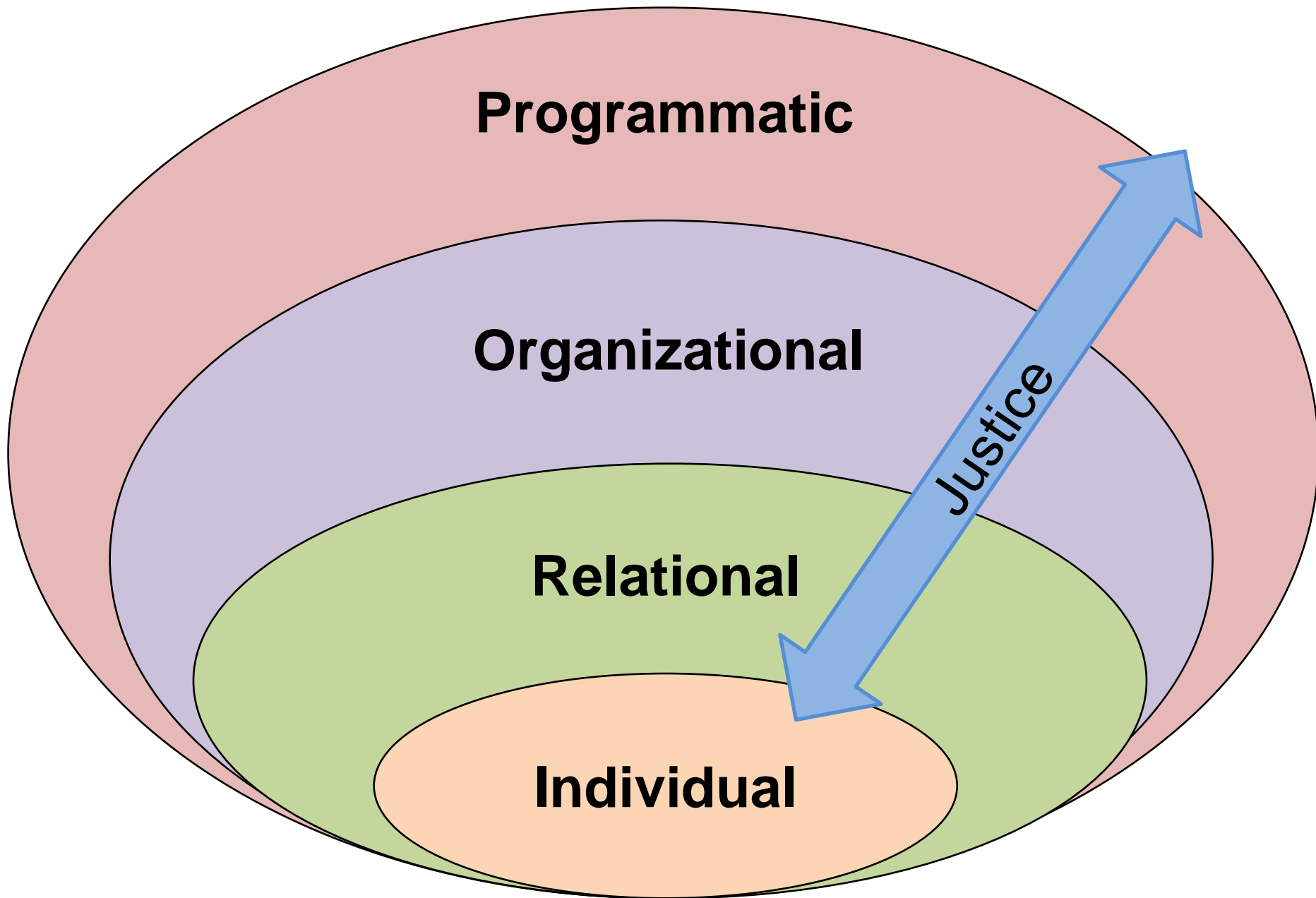
**to solve collective
problems and improve or
maintain the well-being of
that community”**

-Chaskin et al. (2001, pg. 7)



**Social Measures Monitoring System Capacity Model
for water resource management**

(adapted from Davenport and Seekamp, 2013)



Multi-level Community Capacity Model

(adapted from Davenport & Seekamp, 2013)

STUDY OBJECTIVES



1

Assess capacities and constraints associated with groundwater protection



2

Identify and prioritize critical capacity-building needs of LGUs in groundwater and drinking water protection

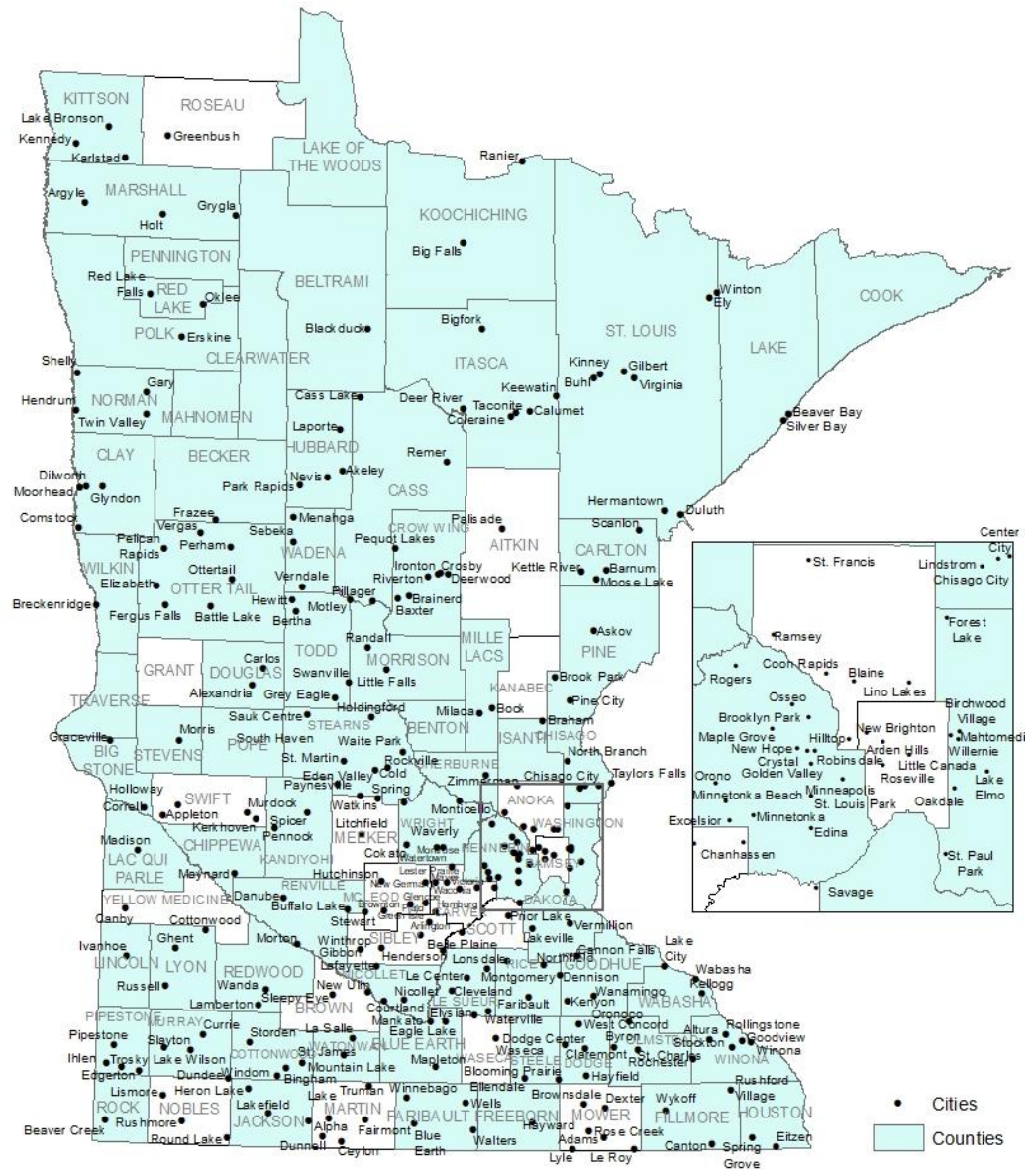
METHODS

Who?

- 1654 non-elected LGU staff
- 87 counties, 700 cities with public water supply
- List obtained from the League of Minnesota Cities and Association of Minnesota Counties

How?

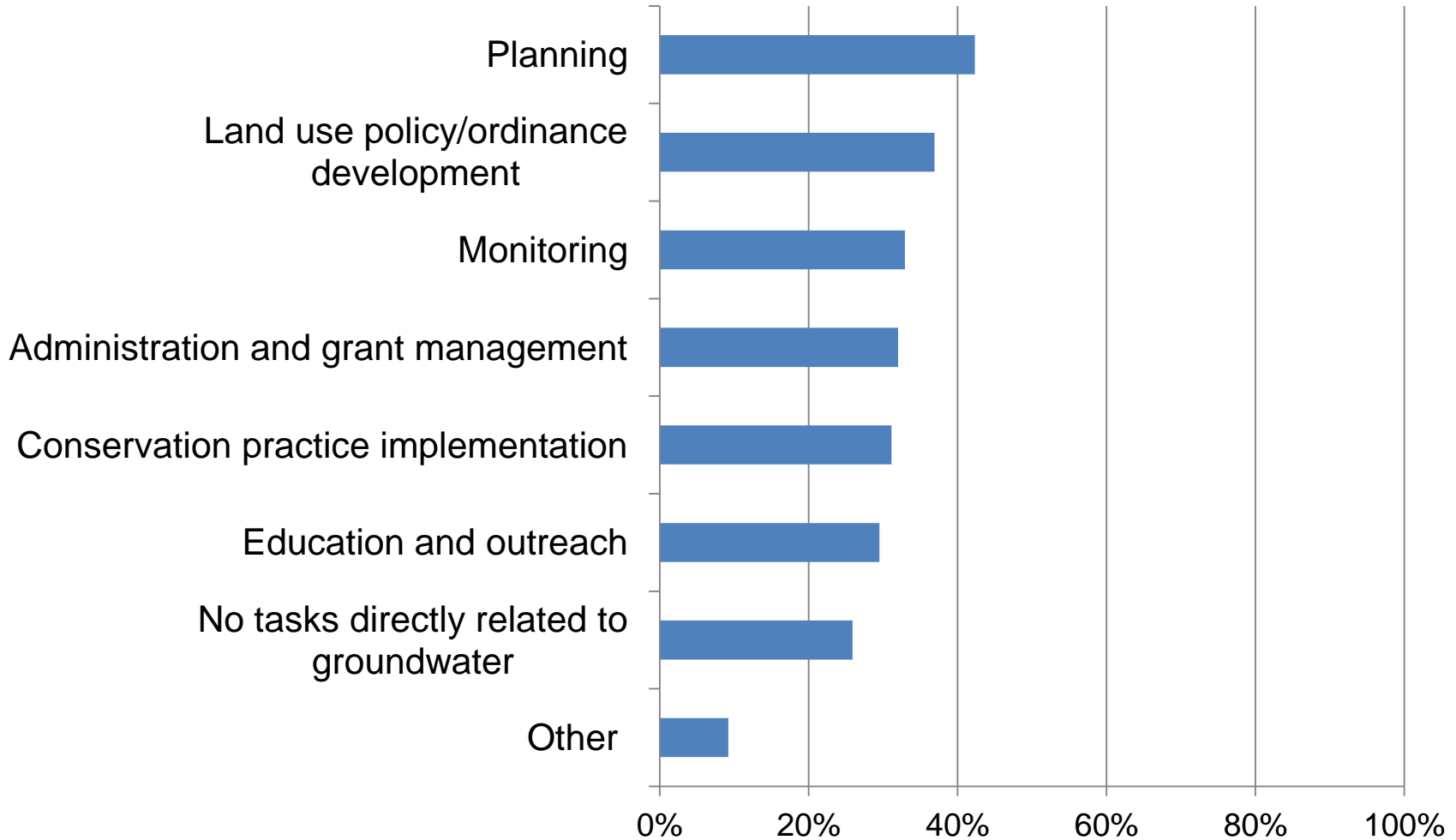
- Online survey
- Questionnaire developed using Qualtrics
- 3 waves- Feb and March 2017
- 29% response rate (n = 483)



City and County representation of survey respondents

FINDINGS

Respondents' roles that directly relate to groundwater

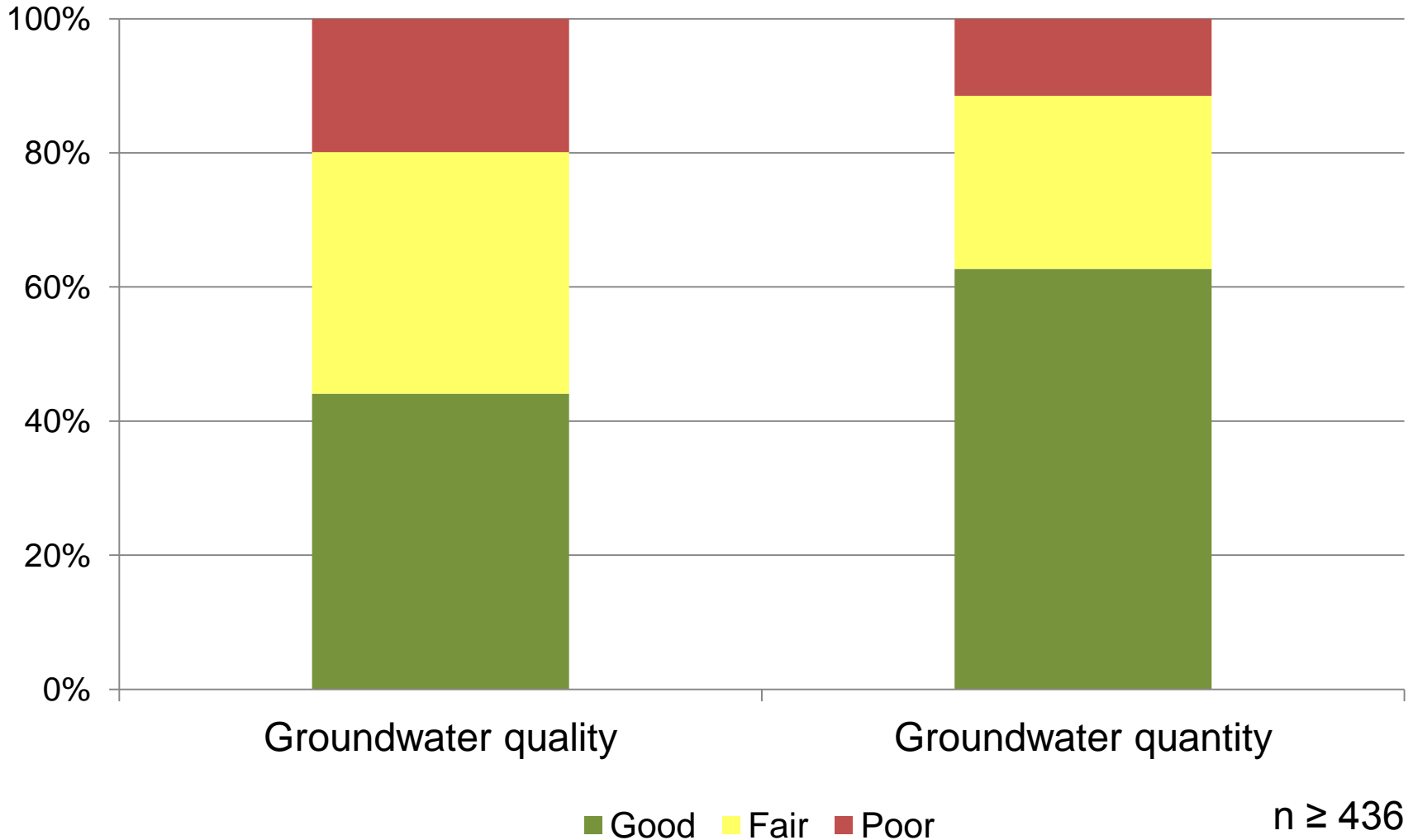




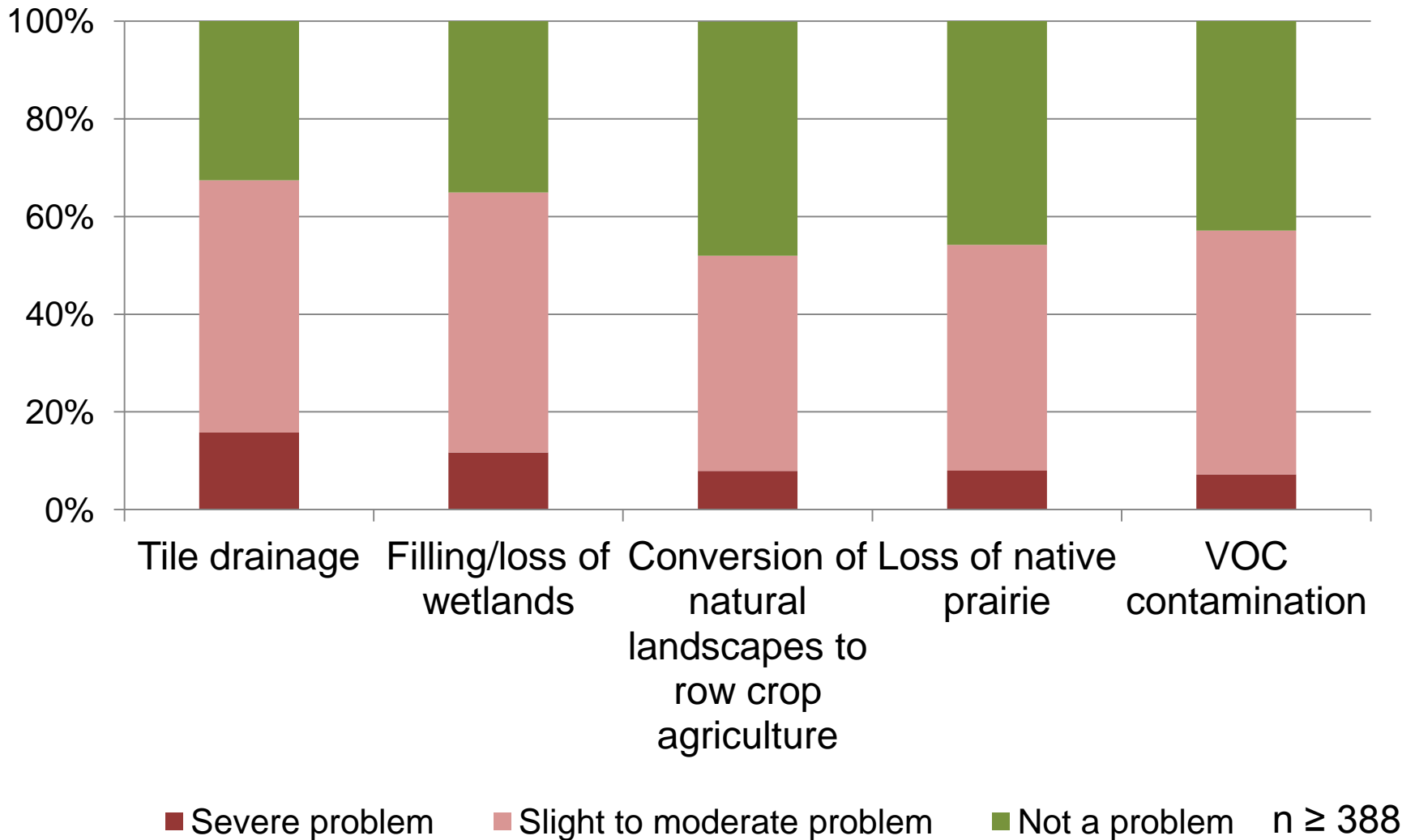
1

Assess capacities and constraints associated with groundwater protection

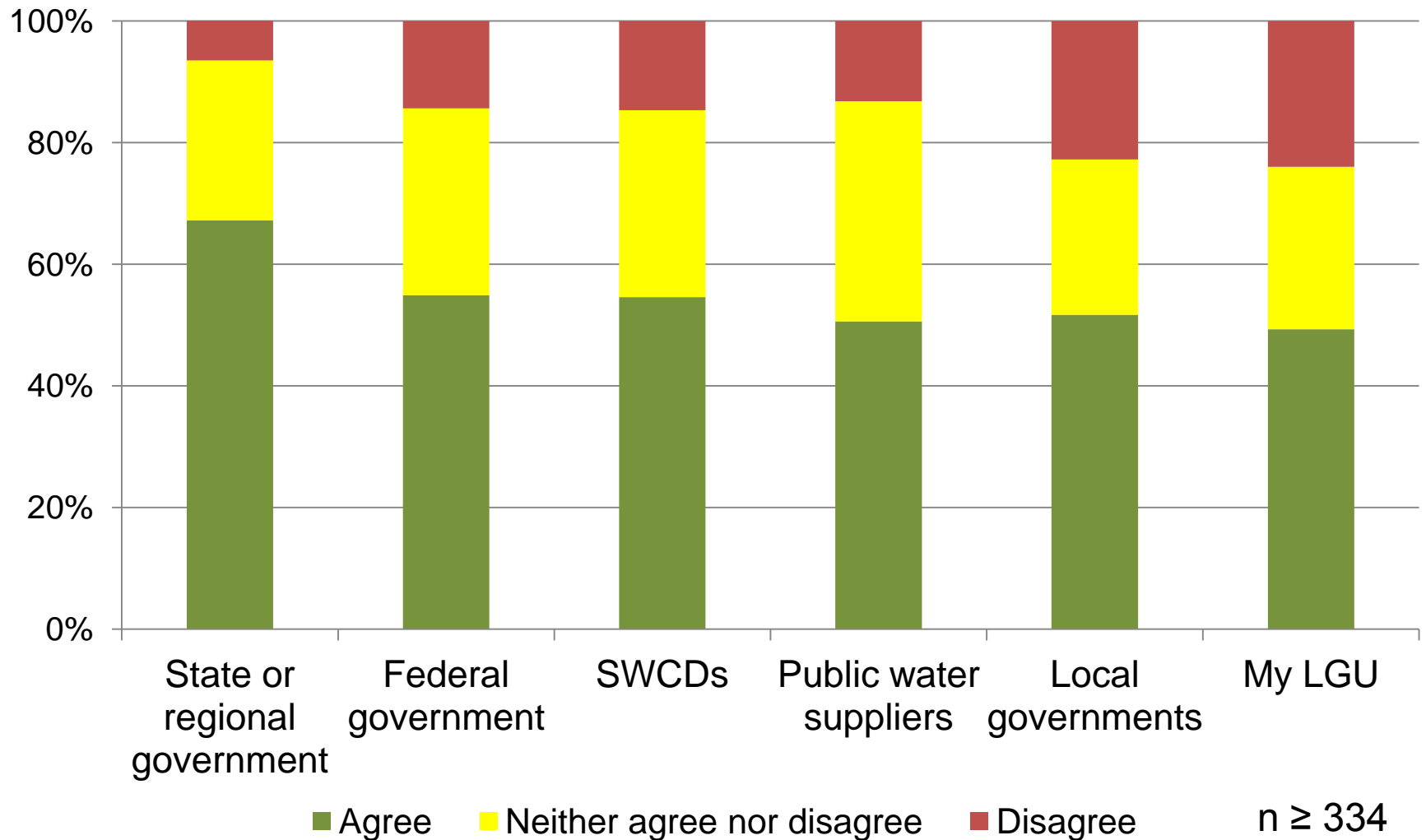
Do LGU staff have the technical expertise they need on groundwater issues?



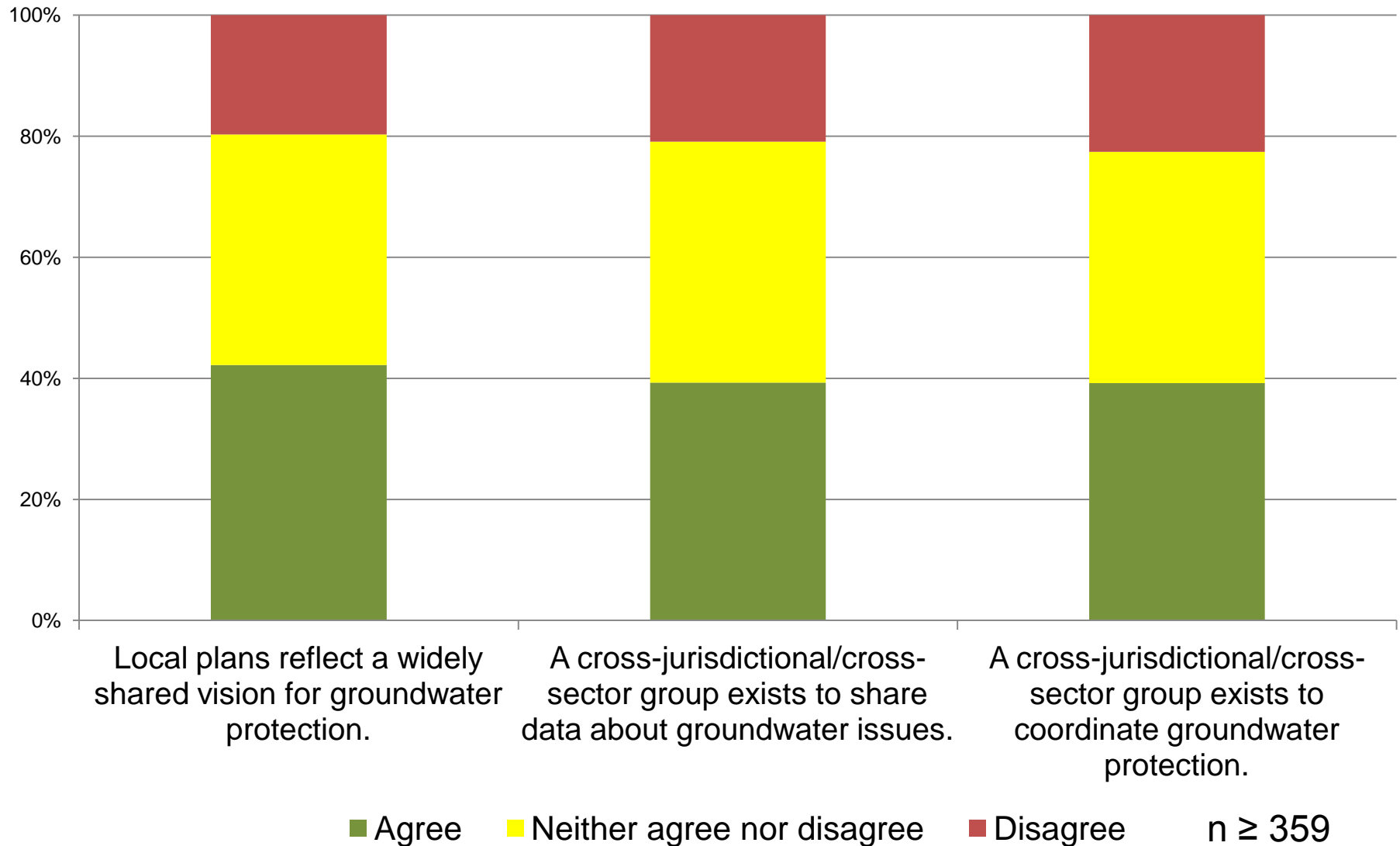
What land uses/issues are LGU staff concerned about?



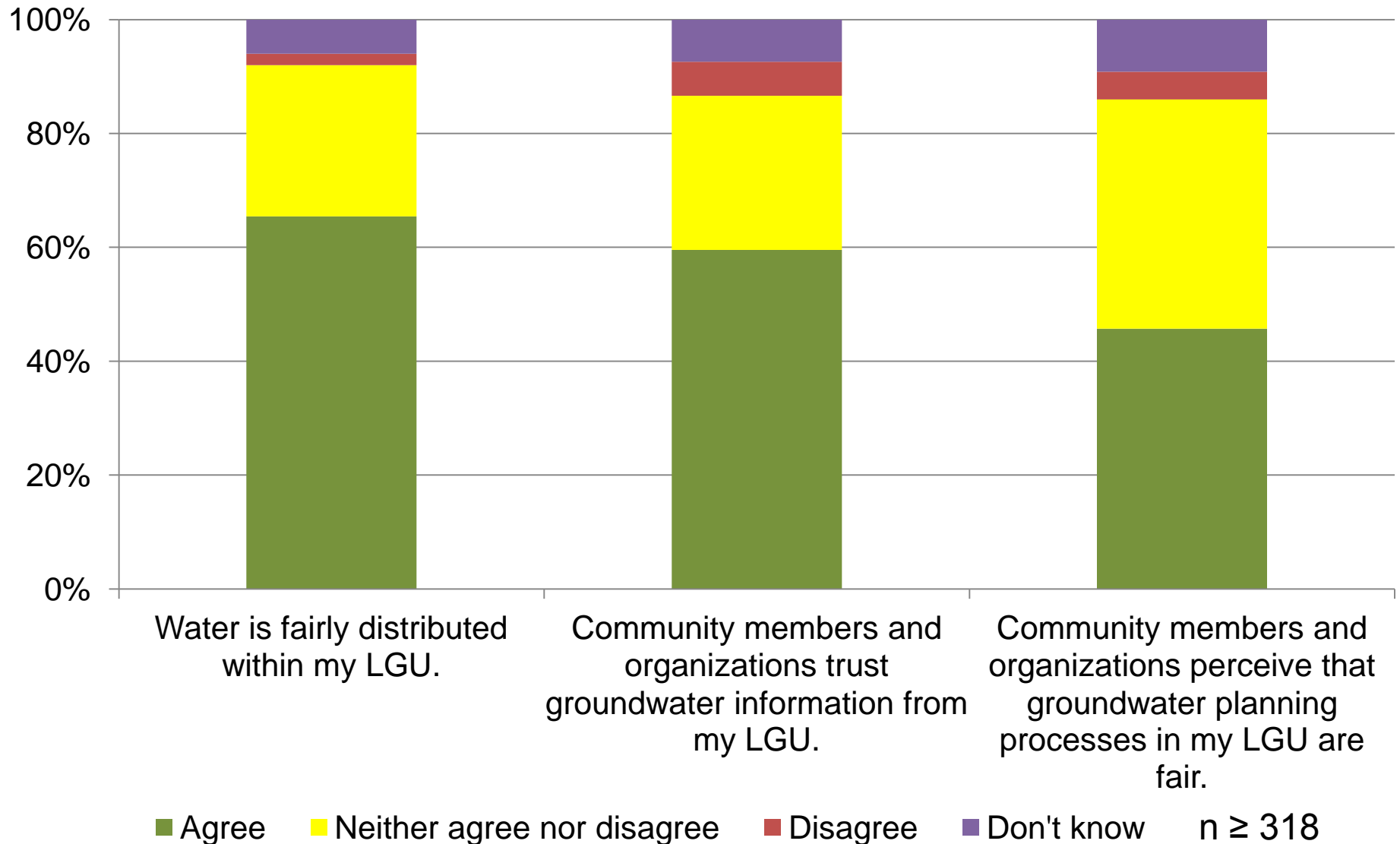
What organizations have the capacity to protect groundwater in their area?



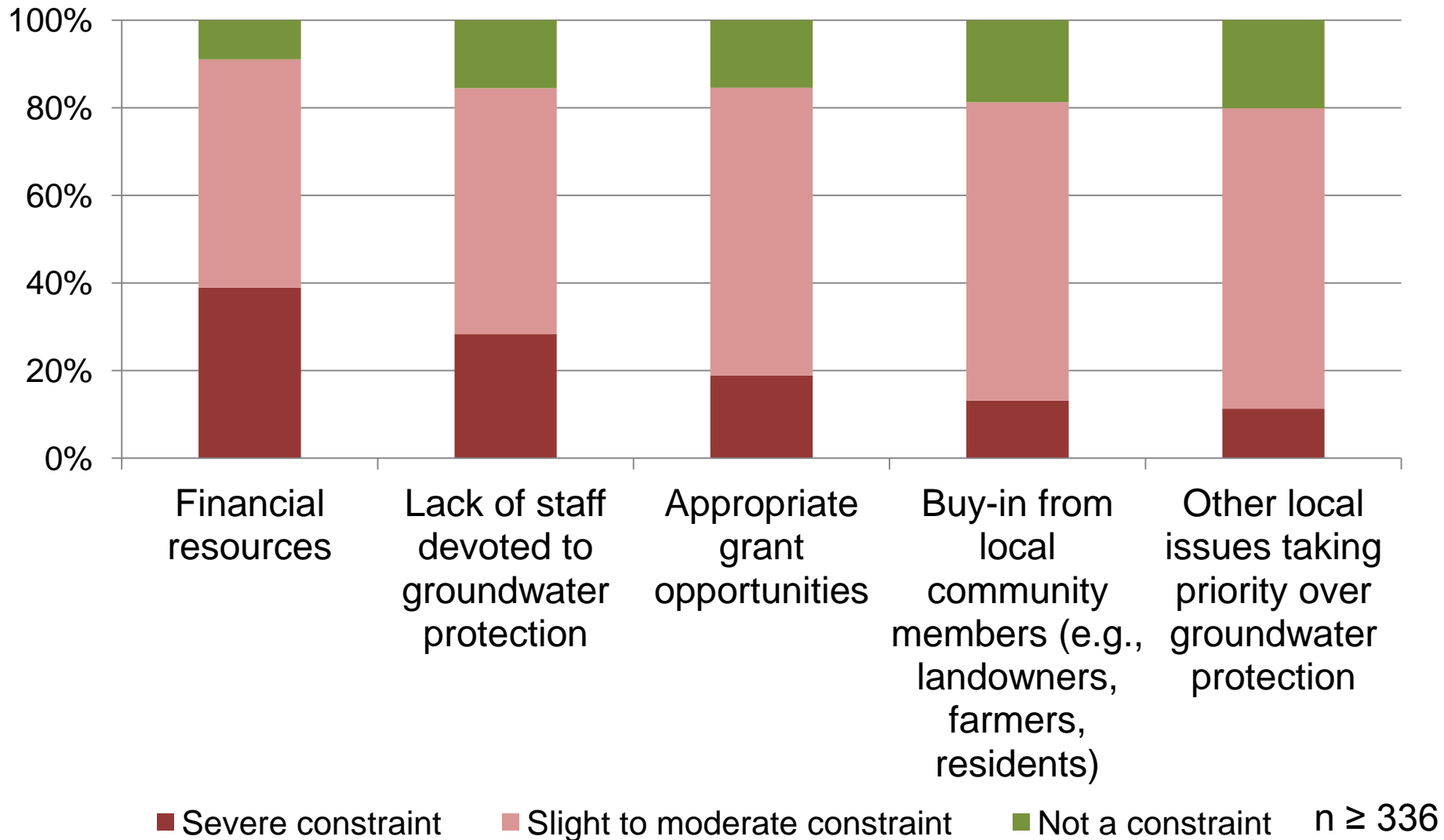
What are LGU staff members' beliefs about capacity of local planning processes?



What are LGU capacities related to trust and fairness in groundwater protection?



What are LGU staff beliefs about constraints to groundwater protection?

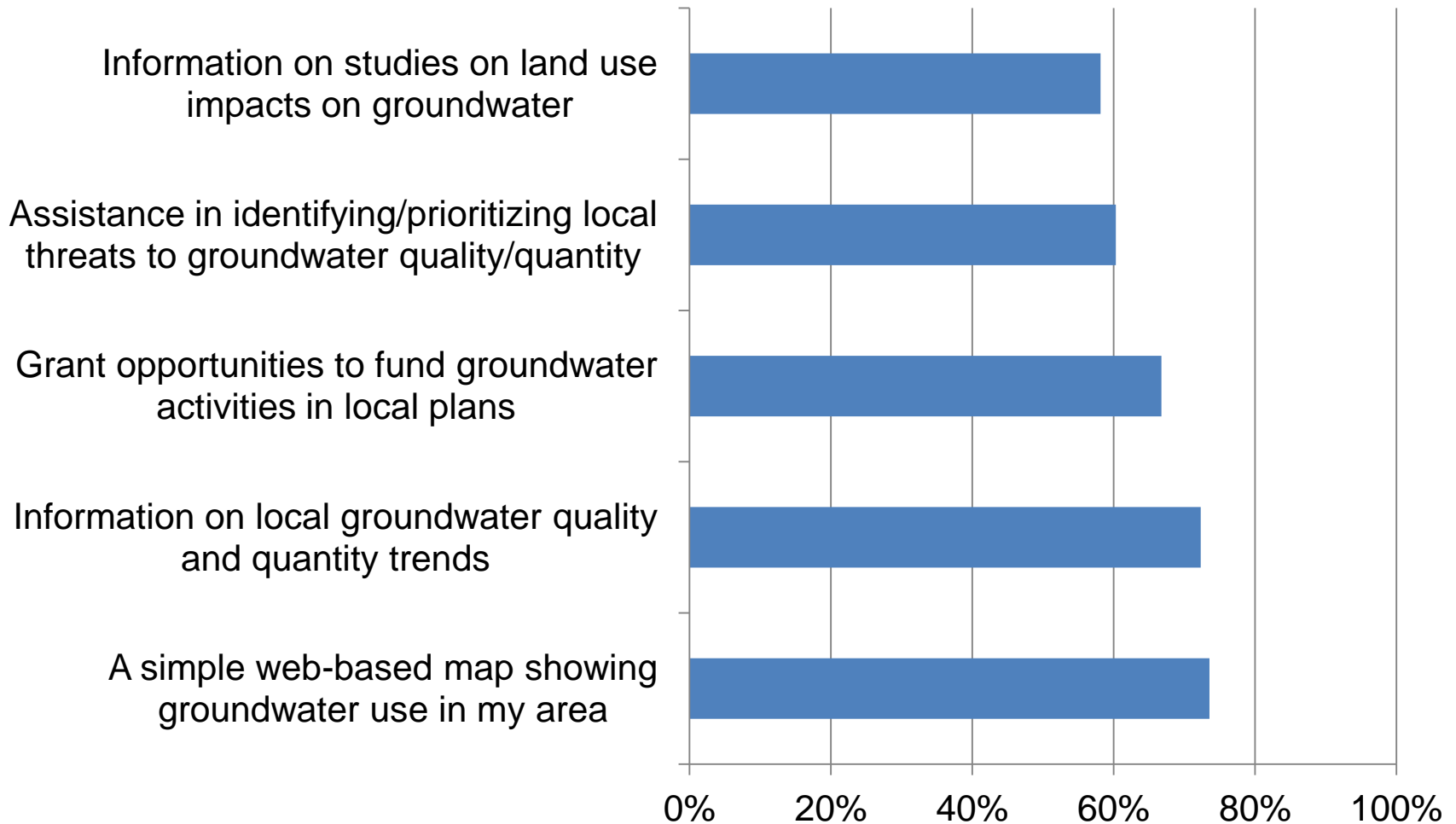




2

Identify and prioritize critical capacity-building needs of LGUs in groundwater and drinking water protection

What types of support to LGUs need?



n = 325

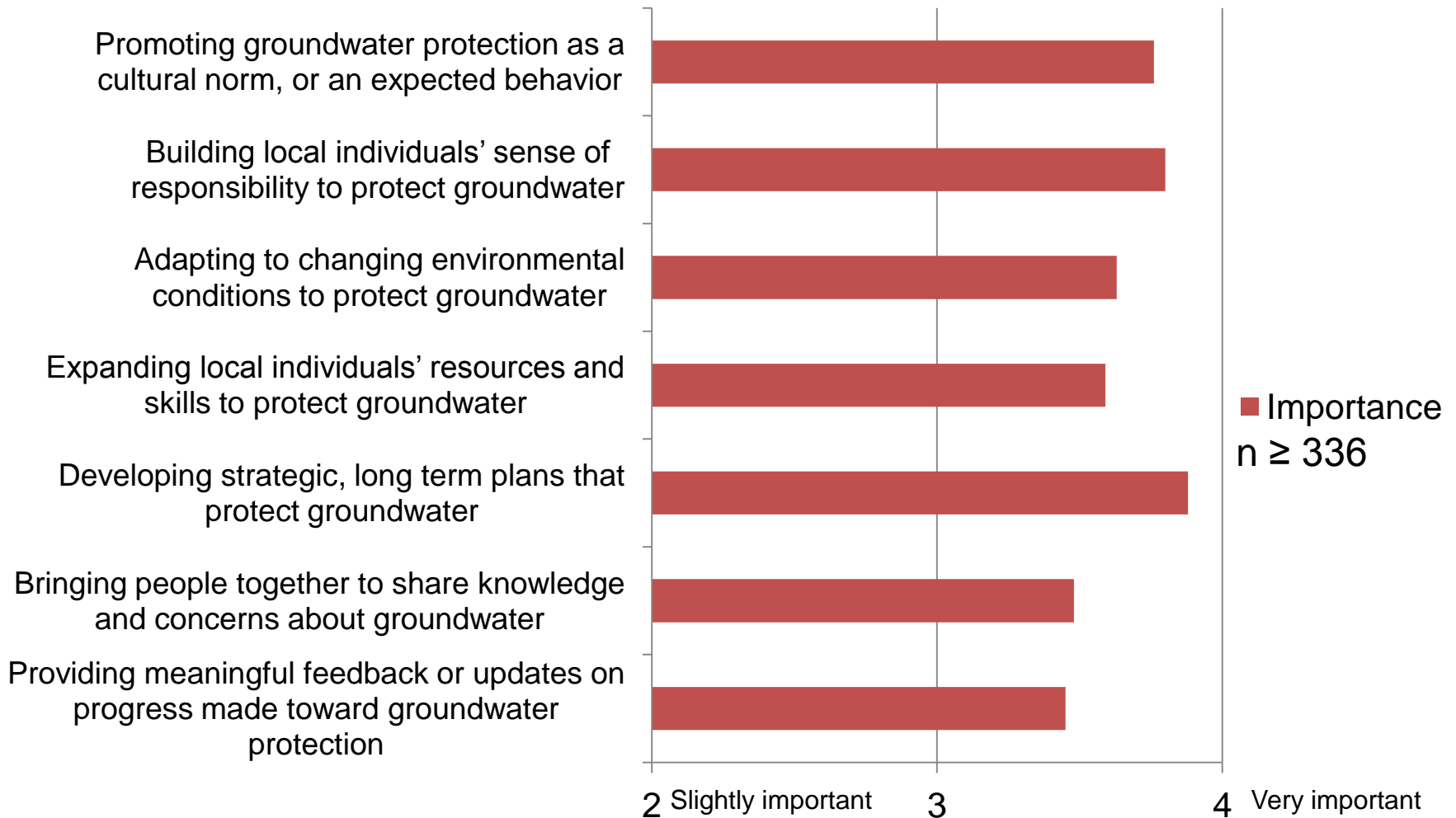
Importance of groundwater protection roles



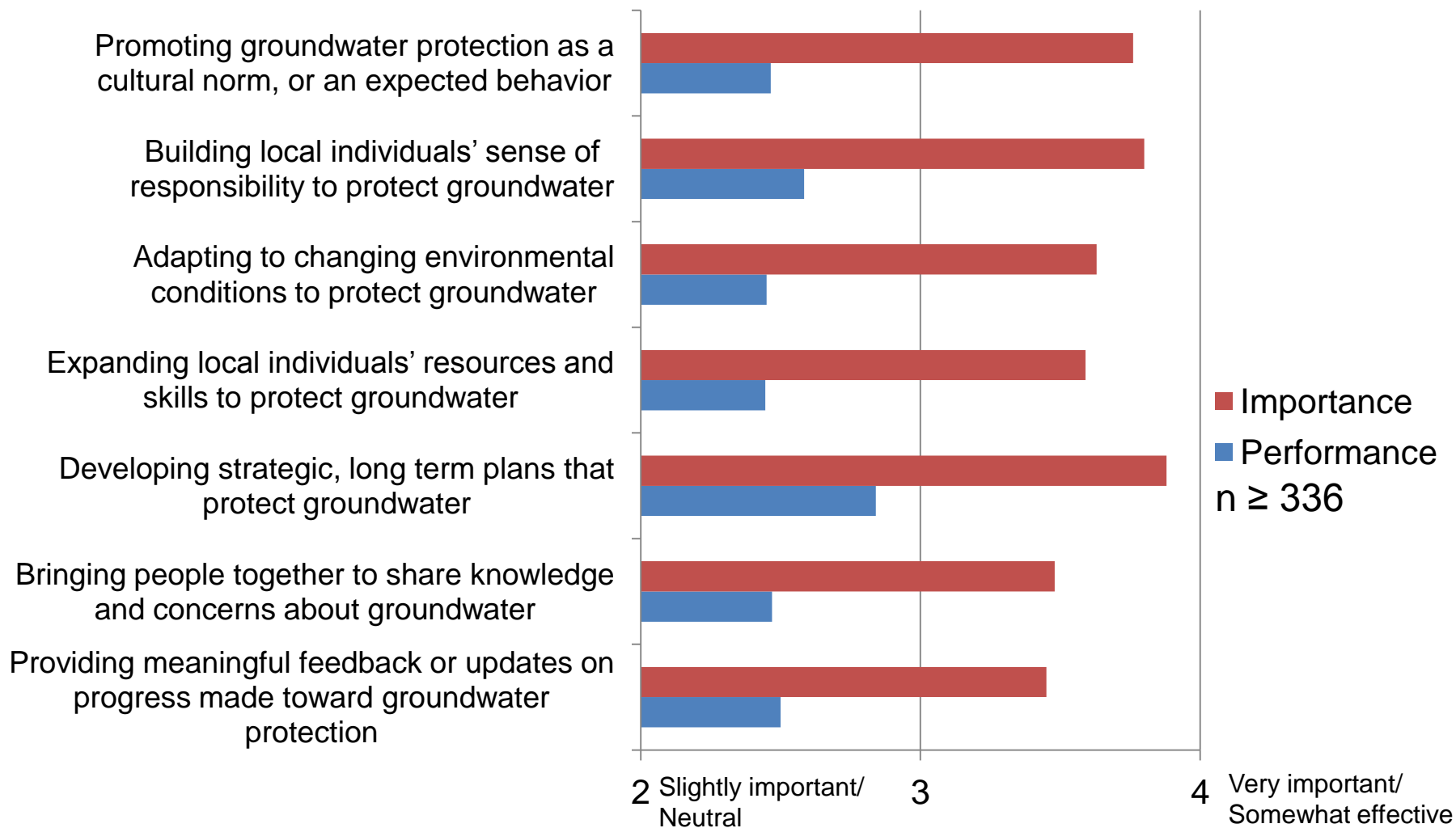
Importance and performance of groundwater protection roles



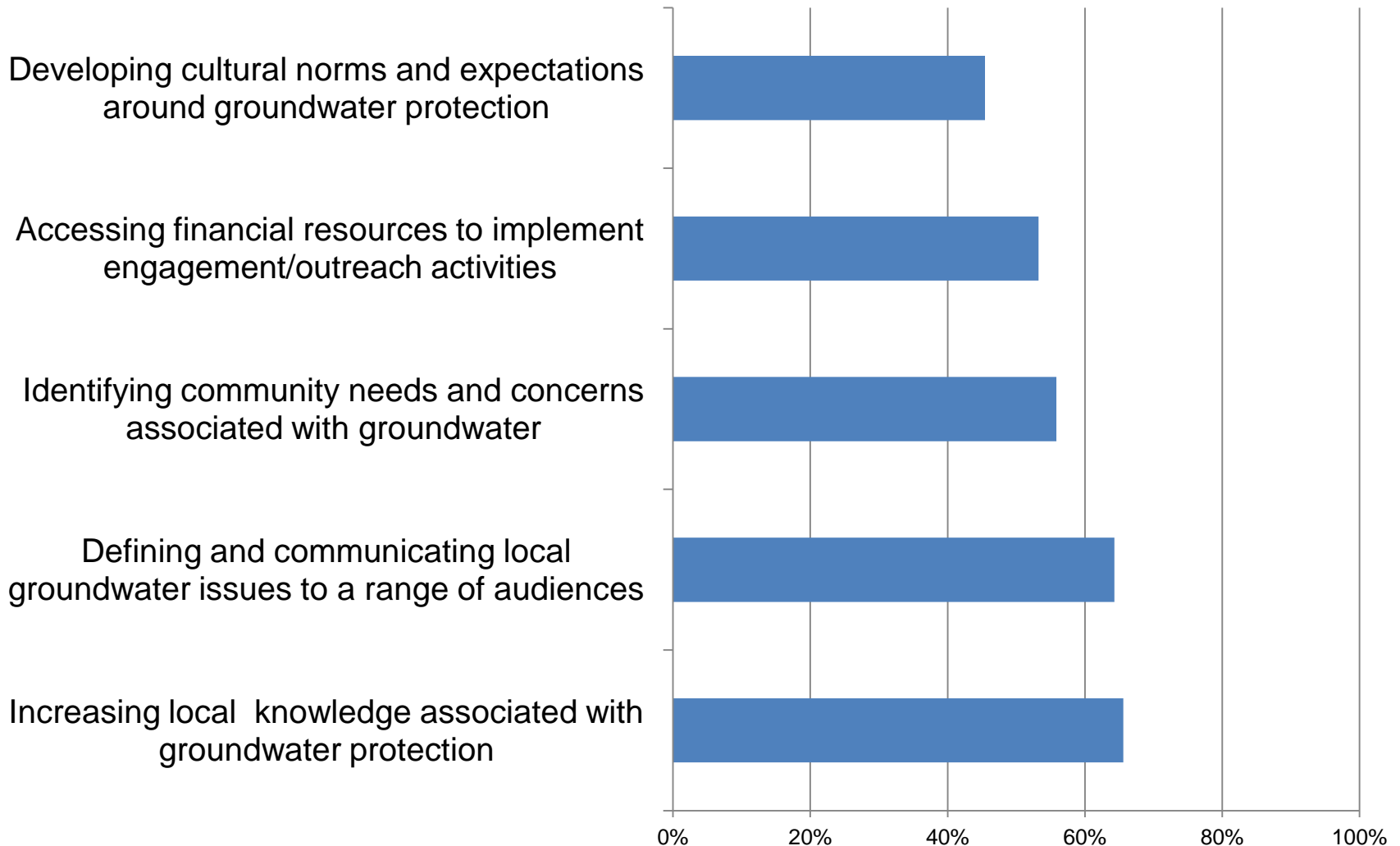
Importance of groundwater protection actions



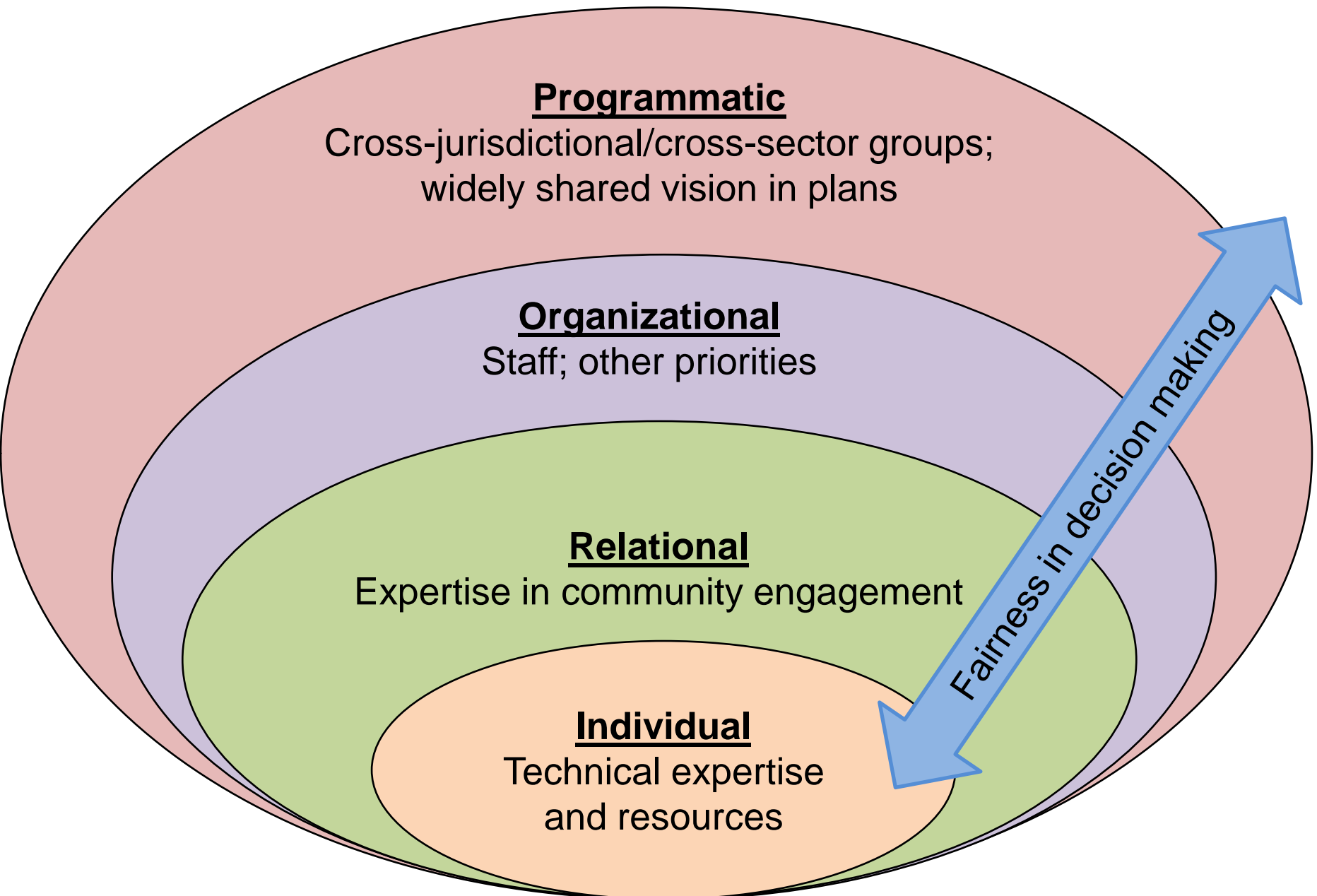
Importance and performance of groundwater protection actions



What types of support to LGUs need to build local capacity?



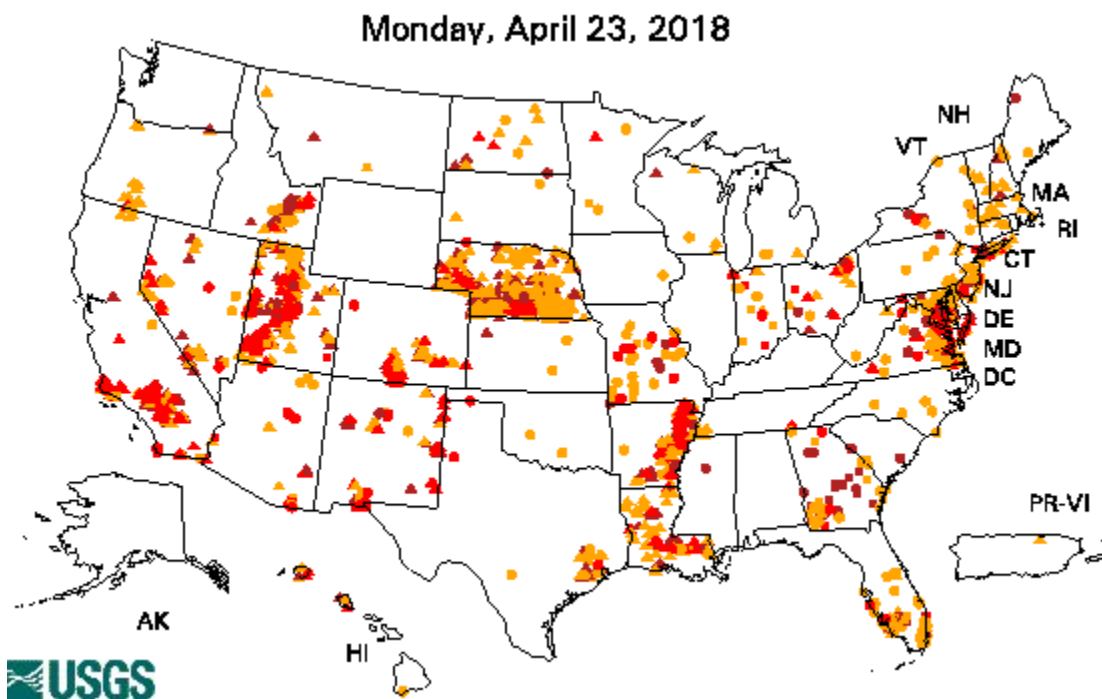
CONCLUSION AND RECOMMENDATIONS



Capacity Constraints

1

Provide locally specific information on groundwater



groundwaterwatch.usgs.gov

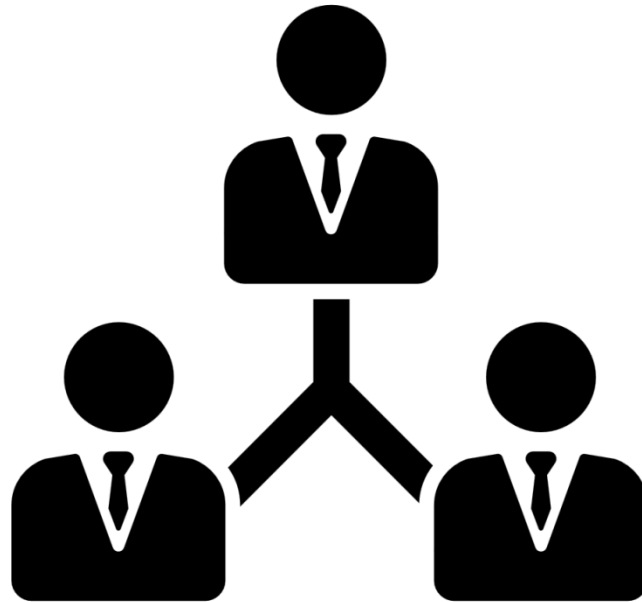
2

Enhance LGU staff's community engagement skills



3

Address staffing and resource needs, and prioritize groundwater protection



4

Develop and/or increase use of cross-sector groups



Acknowledgements

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 - Sharon Pfeifer, DNR
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Questions?