



Joe Raedle/Getty Images

ENVIRONMENTAL JUSTICE & Hazard Mitigation in Texas

Dr. Ashley Ross

Assistant Professor | Texas A&M University at Galveston
Fellow | Institute for a Disaster Resilient Texas

ENVIRONMENTAL JUSTICE

A social movement toward a social goal



SOCIAL GOAL

Fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

- *US Environmental Protection Agency*

SOCIAL MOVEMENT

Address the unequal distribution of environmental benefits and harms and asks whether procedures and impacts of environmental decision making are fair to the people they affect.

- *Bryant & Callewaert (2003)*

INEQUITIES ACROSS RACE & CLASS



FLOODING

Hurricane Harvey (Houston): Black and Hispanic residents disproportionately experienced flooding in areas beyond FEMA's 100-year flood zones (Smiley 2020).

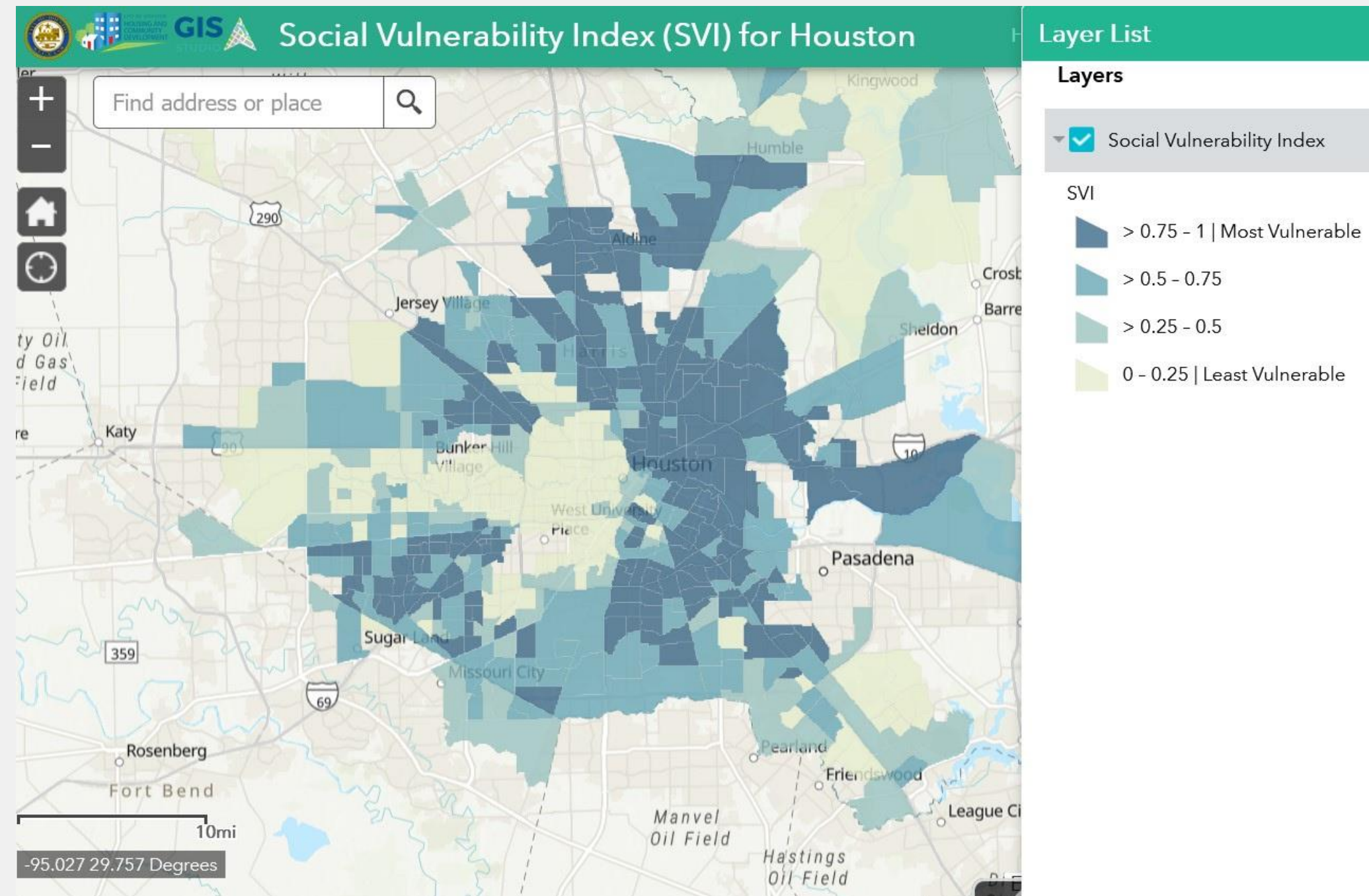
PROTECTIVE INFRASTRUCTURE

Houston: Minority communities more likely to have open ditch systems, which limit discharge of stormwater (Hedricks 2011).

DISASTER DAMAGES

Hurricane Ike (Galveston): Poor and minority neighborhoods experienced greater damage (Highfield et al 2014).

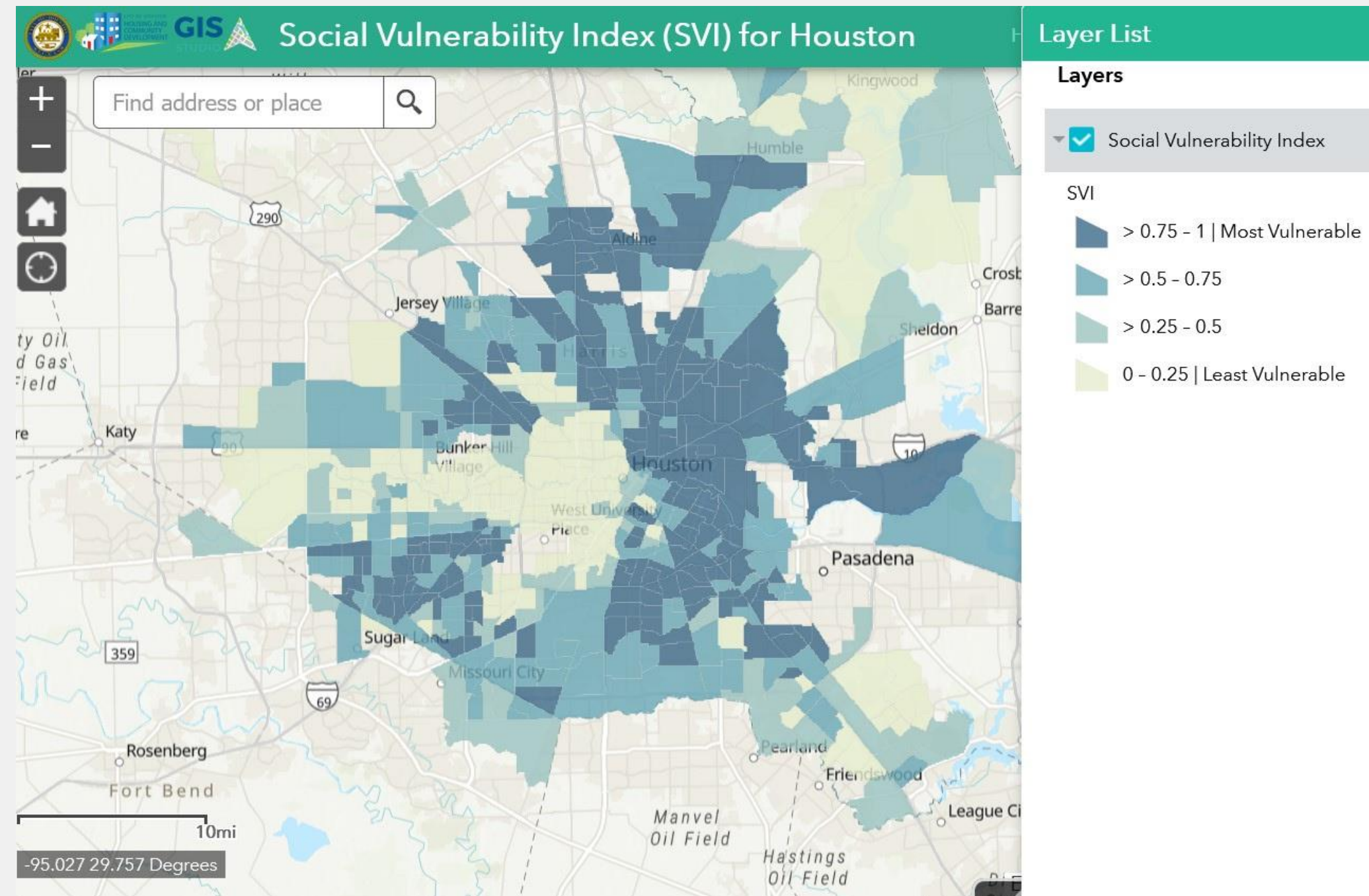
POPULATION CHARACTERISTICS



SOCIAL VULNERABILITY MEASURES

- Socioeconomic status
- Household composition in terms of age, dependents, disabilities
- Minority status & language
- Housing type & transportation

POPULATION CHARACTERISTICS



SOCIAL VULNERABILITY MEASURES

- Socioeconomic status
- Household composition in terms of age, dependents, disabilities
- Minority status & language
- Housing type & transportation

Demographics are only proxies for capacities to deal with crisis.

**POLITICS IS AT
PLAY WHERE
INEQUITIES
EXIST.**



Brett Coomer/Houston Chronicle

**Arbor Court Apartments | Greenspoint, Houston, TX
April 2016**

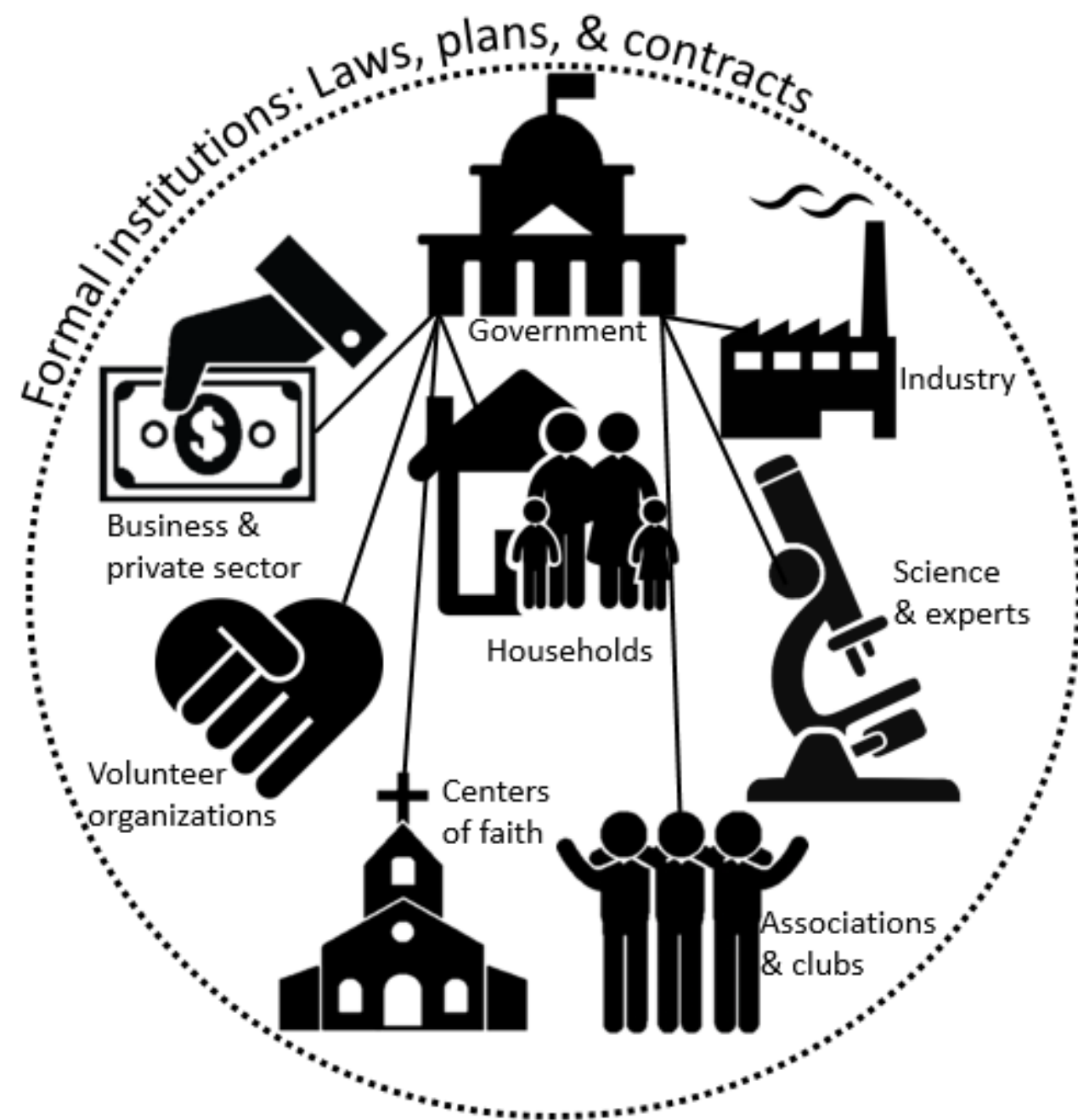
**With UNEQUAL
BENEFITS,
INEQUITIES
PERSIST.**



**Flooding in Colonia Ramirez | Hidalgo County, TX
July 2021**

**WE MUST CHANGE
WHO GETS WHAT,
WHEN, HOW.**

GOVERNANCE



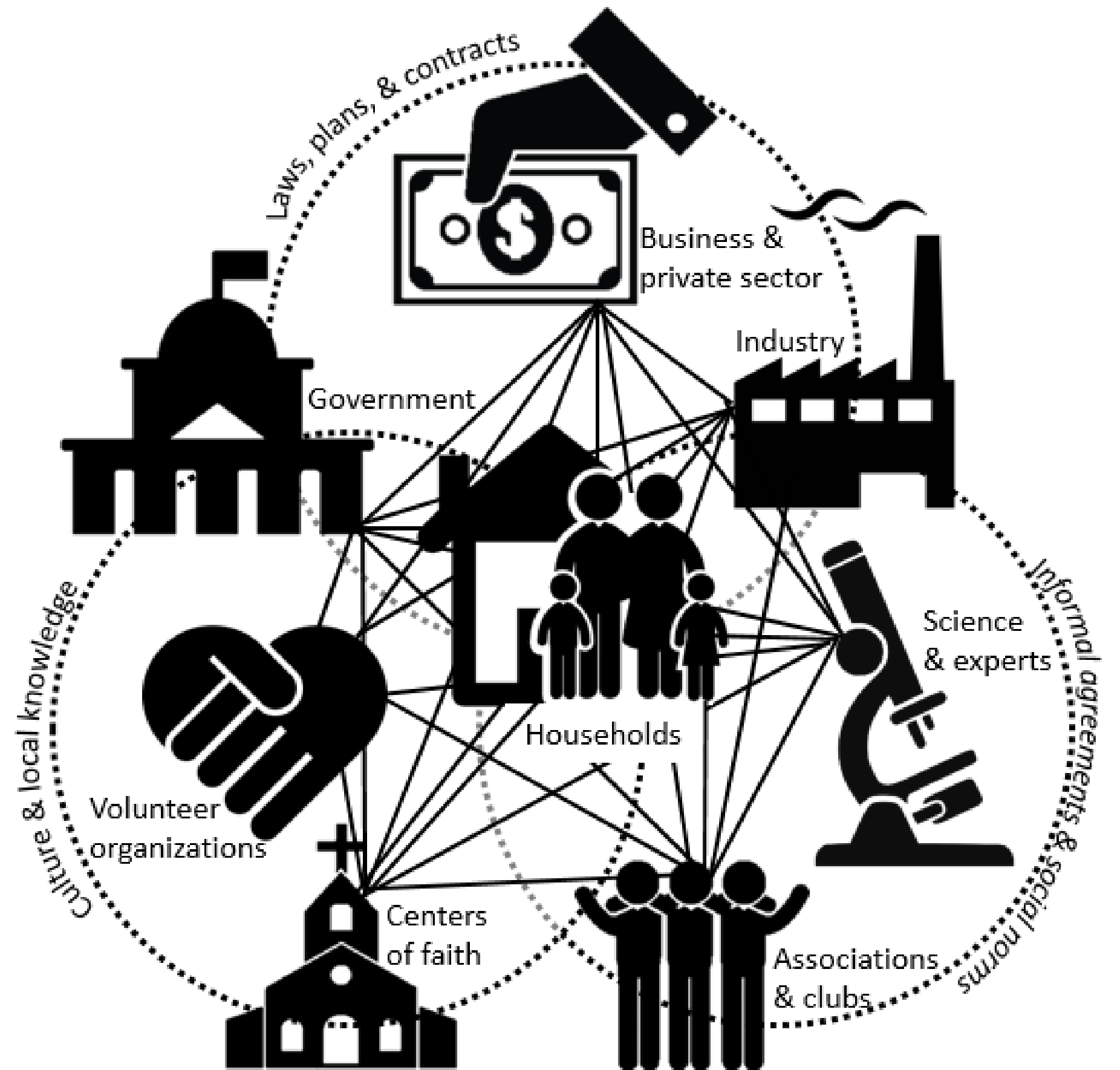
TRADITIONAL MODEL

- Command-and-control largely limits management to compliance
- Relies on public sector authority that is jurisdictionally bounded

GOVERNANCE

COLLABORATIVE MODEL

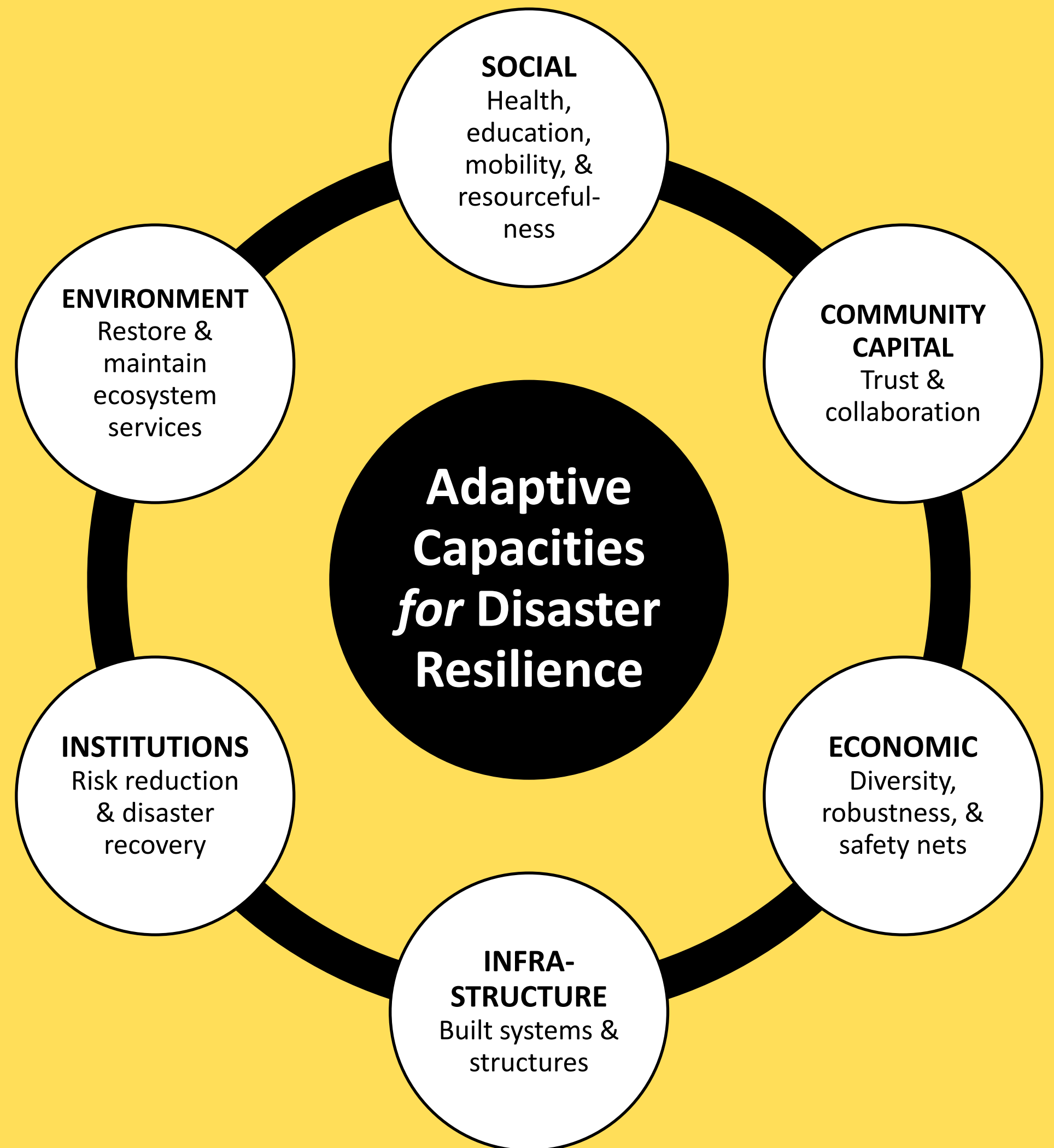
- Public, private, and civic groups work together to solve problems
- Expands the capacity and resources that may be used to address social problems
- More inclusive and representative – technical and local knowledge; formal laws/regulations and informal practices and cultural norms; and offers a place at the table for all groups and people



RESILIENCE

CAPACITY BUILDING

- Collaborative model of governances facilitates community capacity building for resilience across all capacity areas
- Institutional, infrastructure, environmental capacity – typical focus of public sector
- Economic capacity is largely built by the private sector
- Social and community capital require involvement of civic groups



COLLABORATIVE GOVERNANCE



National Weather Service

SCOPE OF ISSUE


Are we looking at the full scope of the problem? What are the social, political, economic, and environmental drivers?

INSTITUTIONS

Are our institutions, systems, and ways of making decisions inclusive? Who is not at the table? How to we reach out to them?

OUTCOMES

How can we improve evaluation of outcomes so that we are monitoring inequalities and continually working to improve them?



**Environmental justice means that
no community should be saddled
with more environmental burdens
and less environmental benefits
than any other.**

- Majora Carter, urban revitalization strategist

CONTACT INFORMATION

Ashley Ross

Assistant Professor
Marine & Coastal Environmental Science
Texas A&M University at Galveston

Faculty Fellow
Institute for a Disaster Resilient Texas

ashleydross@tamug.edu

(409) 740-4485