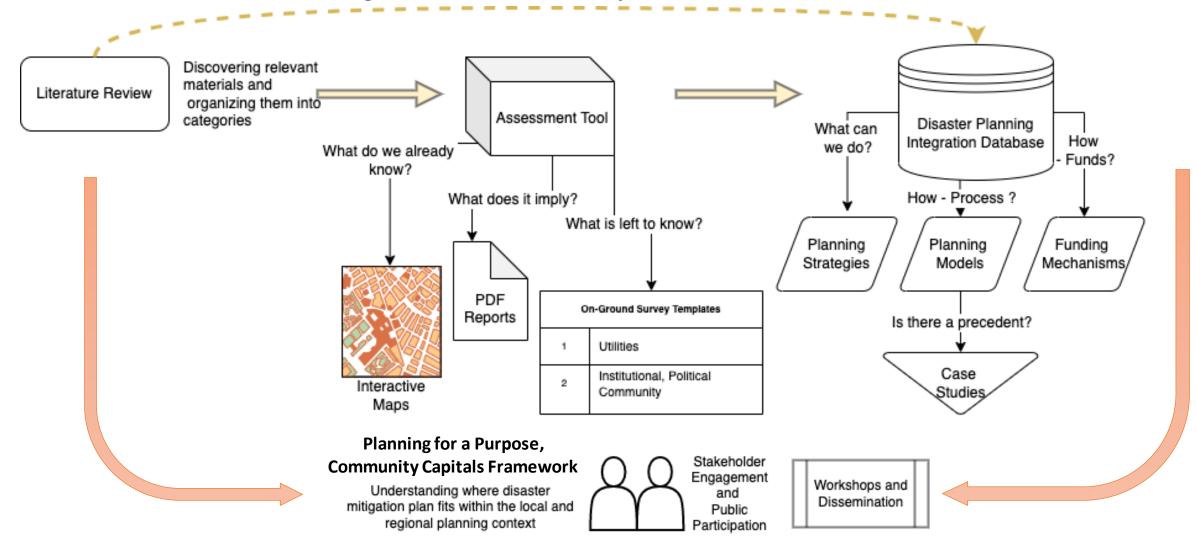
# A Disaster Planning Integration Toolkit for Rural Illinois

June 09, 2022
Arpita Banerjee, Russell Medley
Illinois Extension

### Toolkit

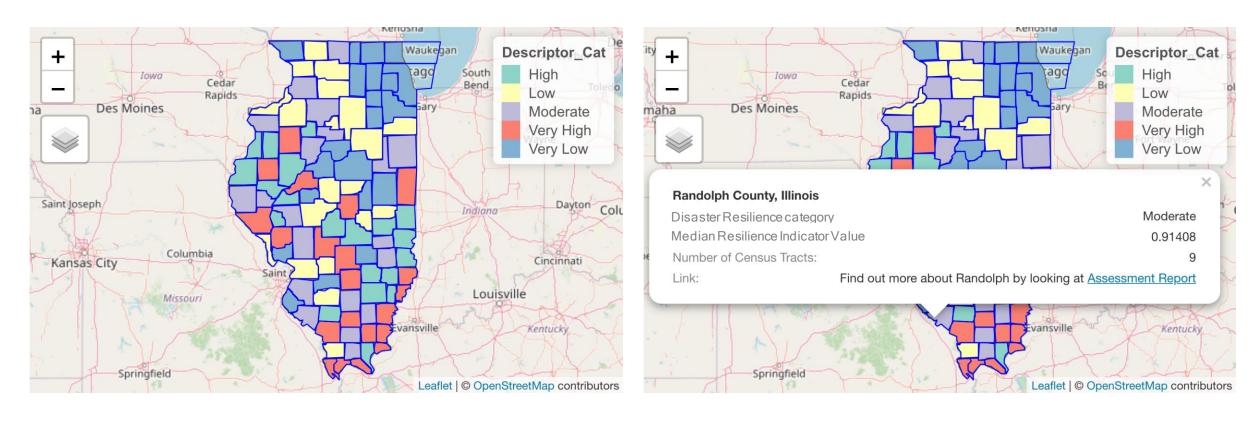
#### **Disaster Mitigation + Economic Development + Green Infrastructure**



## Assessment Tool

Methods, Data, Demonstration

## Assessment Tool



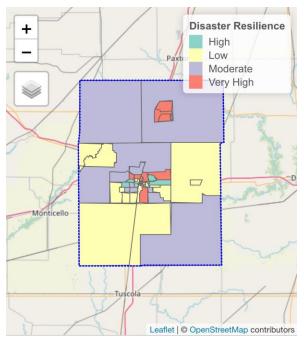
- I. County Level Map showing 5 categories of Disaster Resilience, currently developed based on only indicators for Housing Indicators
- II. Hovering over counties show their names
- III. Clicking on a County shows few details along with link to a detailed report
- IV. Report Layout on Next Slide

#### Champaign County, Illinois – Sample Report

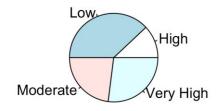
## County Level (Aggregate) **Table 1** Basic Statistics for Champaign, IL

Information	Value
Population	205943
Area	996.27 sq mil
Gross Density (persons/sq mil)	207
Avg HH Size	2.34
Me dian HH Income	\$ 53936 (annual)

Map 1 County Map for Champaign, IL, showing categories of Disaster Resilience

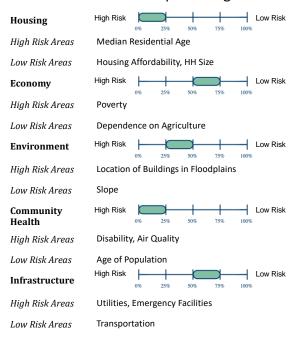


**Table 2** Percentage of Census Tracts under each Resilience Category in Champaign, IL

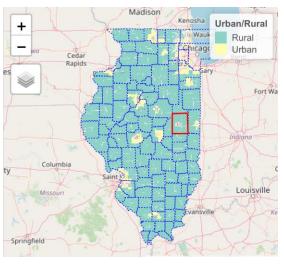


High	Very High	Moderate	Low	VeryLow
12%	27%	23%	38%	0

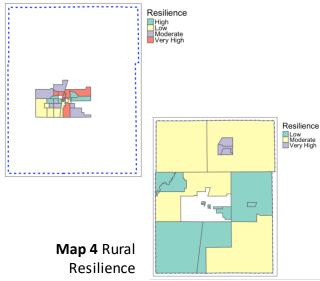
#### **Indicator Group Rankings**



### Map 2 State Map showing urban and rural areas



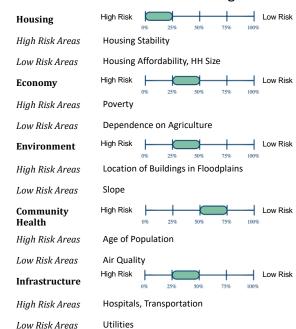
#### Map 3 Urban Resilience



#### Urban - Indicator Rankings

#### Housing High Risk Areas Median Residential Age Low Risk Areas HH Size. Insurance **Economy Employment and Wages** High Risk Areas Low Risk Areas Types of Businesses **Environment** High Risk Areas Land use in floodplains Low Risk Areas No disasters/past damage Community Health High Risk Areas Disability, Air Quality Age of Population Low Risk Areas Infrastructure High Risk Areas Utilities Low Risk Areas Hospitals

#### Rural - Indicator Rankings



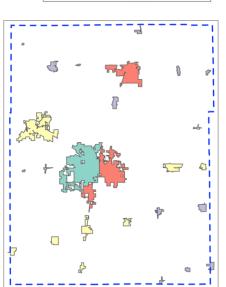
Page 2

Page 1

#### Census Places

Map 5 Census Places in IL and Champaign

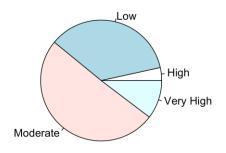




Resilience

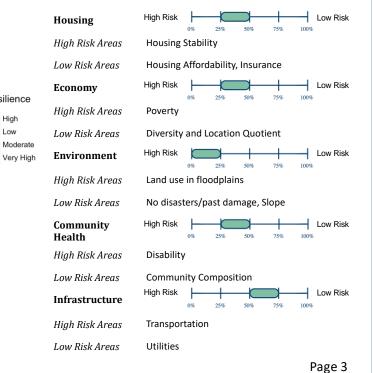
High

Table 3 Percentage of Census Places under each Resilience Category in County, IL



High	Very High	Moderate	Low	VeryLow
3%	9%	44%	31%	0

#### Places - Indicator Rankings



#### Resources

The resources below have been extracted from the Disaster Planning Library to facilitate planning for high-risk areas observed through the assessment. Please go through the following tools as a starting point for your planning process and feel free to search the Disaster Planning Library for further information, if required. The resources here are included to facilitate the process of hazard mitigation planning, through the Planning for a Purpose Model of Illinois Extension (see Toolkit)

Need to Assess in further detail?

#### The following *questionnaires* should help

- On-ground Housing Survey template
- On-ground Community Resilience <u>template</u>

#### See **Strategies** for

- Housing
- **Environment and Hazards Mitigation**
- Community Resilience

#### See *Funding Mechanisms* for

- **Housing Projects**
- **Green Infrastructure**
- **Emergency management**

#### See *Case Studies* for planning precedents

Greening Greensburg.

The following represent key areas of concern (in order of importance) at county level-

- 1. Housing
  - 1. Structural Issues
- 2. Community Health
  - 1. Disability, Functional **Problems**
  - 2. Air Pollution
- 3. Environment
  - 1. Structures located in floodplains
- **Manual for Easy Search Library**
- **Planning Processes**

#### Easy-search Keywords:

COAD **Funding Matrix Emergency Management Rural Housing** Short Term Recovery

Page 4

#### **Appendix (for Demonstration Only)**

**Table 1** Interpretation of High and Low Risk Areas at the County Level

Indicator	Definition	Interpretation as High Risk	Interpretation as Low Risk	Values/Risk (County)	Highest Performing County	Highest Performing County Value
Indicator 1	Indicator 1 is defined as	A high value is associated with high risk because	A lower value is associated with low risk because	x <sub>Co1</sub> (Low)	Kane	X <sub>HCo1</sub>
Indicator 2	Indicator 2 is defined as	A low value is associated with high risk because	A high value is associated with low risk because	x <sub>Co2</sub> (High)	Cook	X <sub>HCo2</sub>
Indicator3	Indicator 3 is defined as	A high value is associated with high risk because	A lower value is associated with low risk because	x <sub>Co3</sub> (Very Low)	Hancock	X <sub>HCo3</sub>
Indicator4	Indicator 4 is defined as	A high value is associated with high risk because	A lower value is associated with low risk because	x <sub>Co4</sub> (Very High)	DuPage	X <sub>HCo4</sub>
Indicator 5	Indicator 5 is defined as	A low value is associated with high risk because	A high value is associated with low risk because	x <sub>Co5</sub> (Moderate)	Rock Island	X <sub>HCo5</sub>
Indicator6	Indicator 6 is defined as	A low value is associated with high risk because	A high value is associated with low risk because	x <sub>Co6</sub> (Very Low)	Champaign	X <sub>HCo6</sub>
Indicatorn	Indicatorn is defined as	A high value is associated with high risk because	A lower value is associated with low risk because	x <sub>Con</sub> (Very High)	McLean	$X_{HCon}$



**Table 2** Interpretation of High and Low Risk Areas at the Urban, Rural and Place Levels

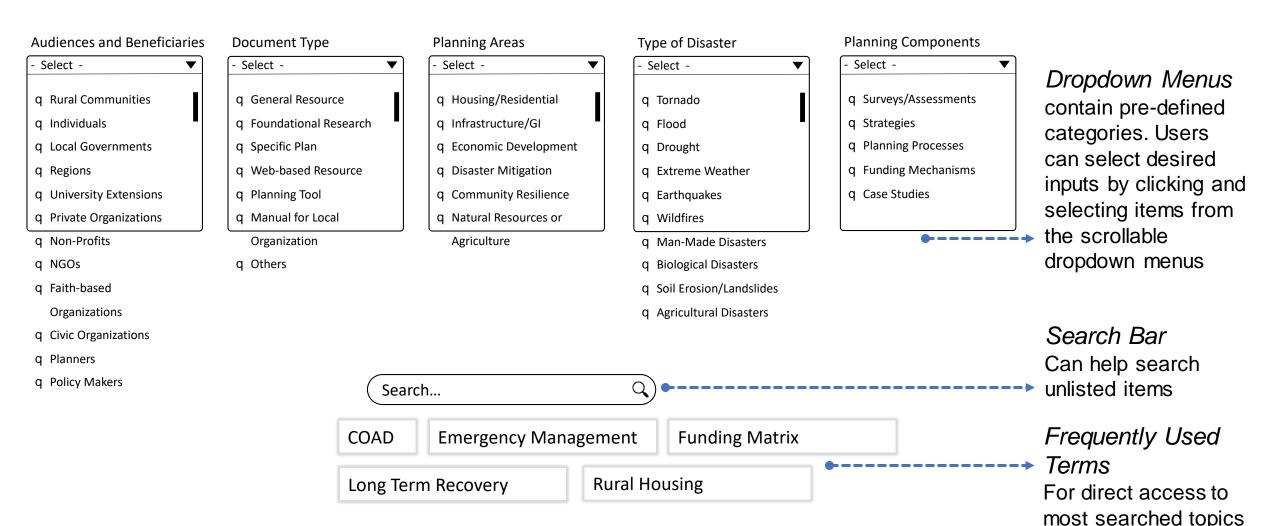
Indicator	Values (Rural)	Level of Concern	Values (Urban)	Level of Concern	Values (Census Places)	Level of Concern
Indicator 1	$x_{R1}$	Low	$\mathbf{x}_{\mathrm{U1}}$	Low	X <sub>C1</sub>	Low
Indicator 2	$\mathbf{x}_{R2}$	Moderate	${ m x}_{ m U2}$	High	$x_{C2}$	High
Indicator 3	$x_{R3}$	Very Low	$\mathbf{x}_{\mathrm{U3}}$	Low	X <sub>C3</sub>	Low
Indicator4	$x_{R4}$	High	${ m x}_{ m U4}$	Very High	X <sub>C4</sub>	Very High
Indicator 5	$x_{R5}$	High	${ m x}_{ m U5}$	Moderate	X <sub>C5</sub>	Low
Indicator 6	$x_{R6}$	Moderate	$x_{U6}$	Very Low	x <sub>C6</sub>	Low
Indicatorn	$\mathbf{x}_{\mathrm{Rn}}$	Very High	$\mathbf{x}_{\mathrm{Un}}$	Moderate	X <sub>Cn</sub>	Moderate



# Disaster Planning Integration Database

Library containing all relevant and available materials

## Disaster Planning Integration Library Interface



#### Step 1

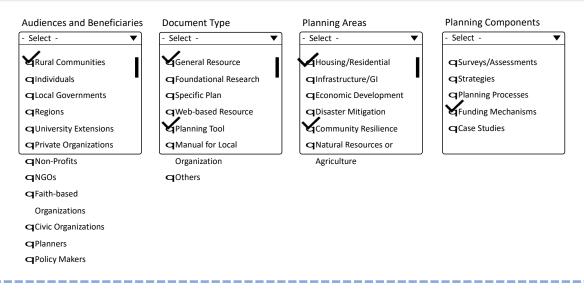
items from drop-down menus

## Select

#### Step 2

Select **Document** and topic from search results

#### yalajel@adalor



#### Showing search results 2 out of 5

#### A Toolkit for Rural Housing

J. D. McClanahan, Illinois Extension - 2021

**Abstract**: The toolkit provides stakeholders in rural cities, towns, unincorporated areas and counties of Illinois with guidance on ... Read full abstract

**Contains:** 

**Funding Mechanisms** 

**Strategies** Strategies **Strategies** 

#### **Federal Disaster Funding Streams and Post-Disaster Community Best Practices**

Zach Kennedy, Carrie McKillip, Ashley Mueller, et al., Illinois Extension - 2021

**Abstract**: The document includes funding mechanisms through federal funding matrices, address local data gathering ambiguities ... Read full abstract

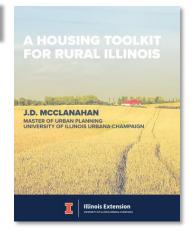
**Contains:** 

**Funding Mechanisms** 

Strategies

**Case Studies** 

**Planning Processes** 



#### A Toolkit for Rural Housing

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#### **Funding Mechanisms**

#### **Organizations Providing Funding**

Illinois Housing Development Authority (IHDA), United States Department of Housing and Urban Development(HUD), United States Department of Agriculture (USDA)

#### **Broad Areas of Funding**

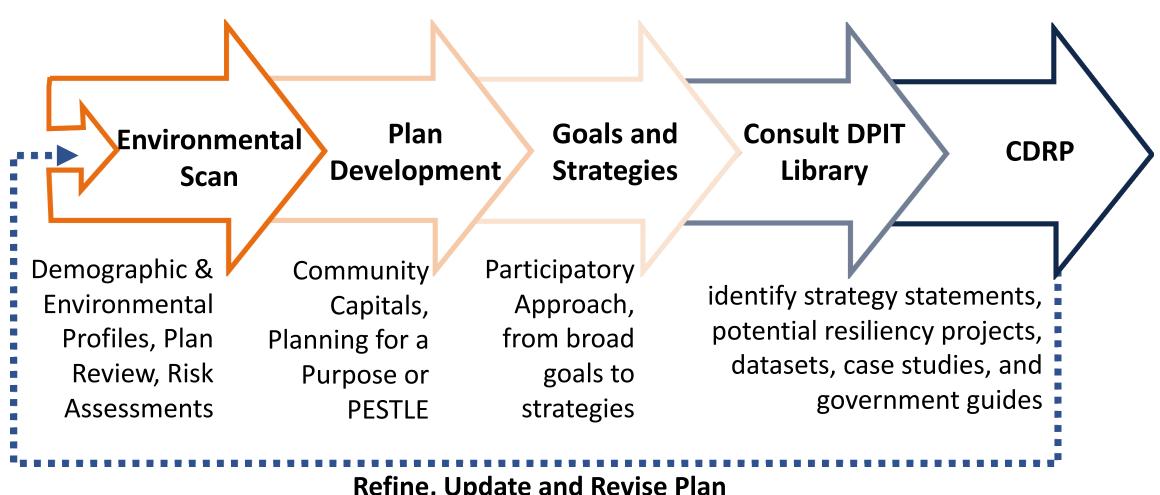
**HUD** - LIHTC (Low Income Housing tax Credit) Program, **Housing Choice Vouchers** 

IHDA - LIHTC, affordable rental housing, community programs, information to local lenders and realtors **USDA** - Rural Development, Single Family Housing Program, Multi-Family Housing Program

Step 3

## DPIT Planning Process

Integrating tools for a Community Development Disaster Plan



Refine, Update and Revise Plan