



Hawai'i Vulnerability & Equity Framework

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Research Objective

Support the State Climate Commission equity mission

- identifies equity as one of the three primary considerations for all climate actions
- urges all government entities in Hawa'i to identify, recognize, and address any inequitable distribution of the benefits, burdens, and processes caused by climate change impacts and policy.

To conduct a landscape assessment of how social vulnerability data and information are being used in climate-related decision-making in Hawai'i and to better understand best practices in doing so for future work.

Research Activities



Identified social vulnerability indicators (SVI) in literature.

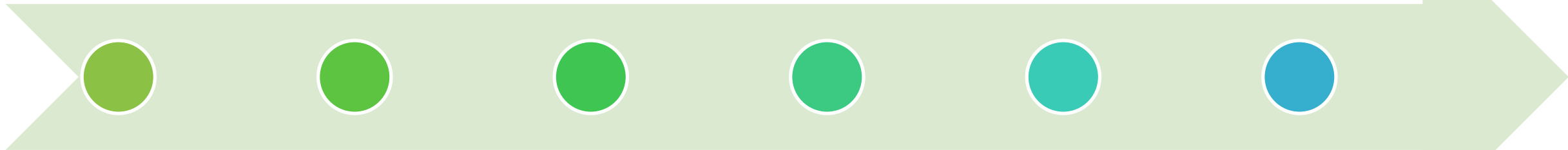
Engaged Commission's Hui members to get feedback on application of existing SVI in Hawai'i.

Assessed publicly available data on climate change exposure and SVI.

Reviewed best-practices for applying SVI in practice

Reviewed local plans and indexes for use of SVI to inform decision-making.

Created an excel-based "guide" that brings together climate change shocks and stressors with SVI.



Major Hawai'i- Focused Findings

- Existing use is limited and high-level
 - There are several examples of how SVI are used in community-based plans in Hawai'i, but their wide-spread use is limited and data is high-level (i.e. limited benefit to inform decision-making).
- Efforts in progress
 - Several state and county departments/agencies have (or are in the process) of developing/integrating SVI with the intent of using it for communication and to improve their decision-making processes.

Hui members said:

need more diverse, detailed and up to date exposure data

need more frequent data updates to make it easier to evaluate the effect of interventions.

Need data at a finer spatial scale

To customize for specific use, separate data/indicators are more useful than composite indexes

need to link specific types of exposures with the relevant indicators of vulnerability and indicators of adaptive capacity

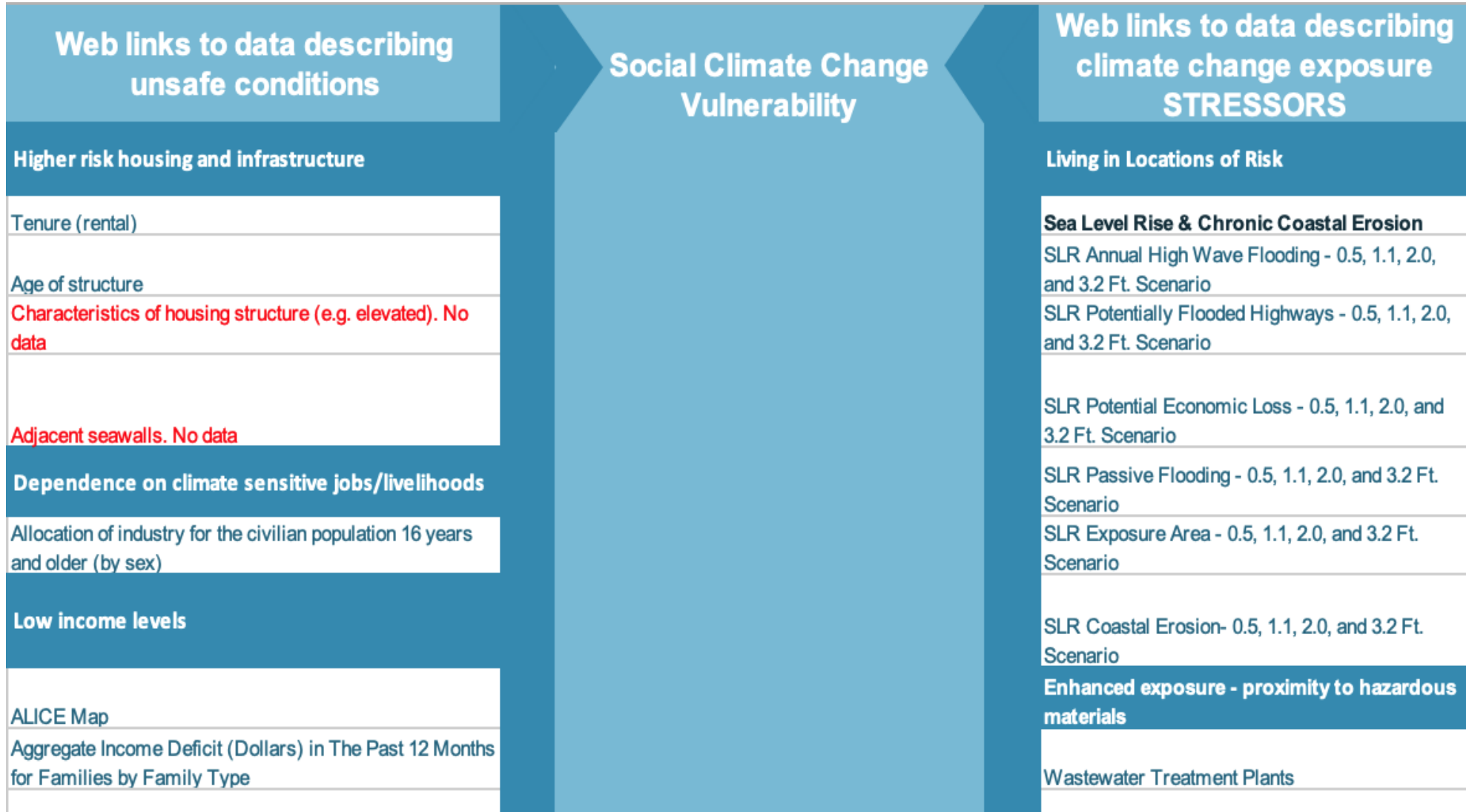
Many departments are in need of SVI geospatial data but lacking resources to process datasets.

There is a desire to have a centralized state database and/or data processing capacity.

Climate Change Social Vulnerability Guide – SLR Example

Types of Unsafe Conditions	Shocks				Stressors			
	SLR events	Extreme weather	Heat waves	Landslides and rockfalls	Chronic SLR and coastal erosion	Precipitation	Heat stress	Soil erosion
Higher risk housing and infrastructure	X	X	X	X	X		X	X
Low-income levels	X	X	X	X	X	X	X	X
Dependence on climate sensitive livelihoods	X	X	X		X	X	X	
Special groups at risk	X	X	X	X			X	
Historical and other disparities (race/origin and gender)	X	X	X	X	X	X	X	X
Mobility constraints	X	X	X	X				
Language and communication barriers	X	X	X	X	X	X	X	X
Lack of social security and insurance	X	X	X	X	X		X	X
Lack of disaster preparedness	X	X	X	X				
Lack of adaptation measures	X	X	X	X	X	X	X	X
Access to critical infrastructure	X	X	X	X				

Climate Change Social Vulnerability Excel Guide – SLR Example



Tentative Future Steps

- Working with a department to create a pilot for applications within specific sectors
- Developing a user-friendly database and data-visualization portal that could support multiple agencies' individual efforts



Thank you!

Questions?

Feel free to contact suwans@hawaii.edu