Climate Vulnerability Metrics

Nathan Bengtsson
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Together, Building
a Better California

Assessing Adaptive Capacity – To What End?

Guiding Questions re: Assessing Community Adaptive Capacity in the context of CAVA

- How does assessing adaptive capacity support the outcome we are trying to cause?
- There are many methods of assessing adaptive capacity – which is best suited to the outcome we are trying to cause?
- Are we looking for a technical solution? A policy solution? Both?

Assessing Adaptive Capacity

The PG&E CAVA used the Baseline Resilience Indicators for Communities (BRIC) Index to assess the adaptive capacity across regions as a complementary tool to align with RTAG feedback.

- **BRIC is a publicly available and academically vetted index pulling from federal government data developed for U.S. counties** to better understand and measure resilience across counties.
- The BRIC index measures six categories of community disaster resilience: **social, economic, community capital, institutional, infrastructural, and environmental**.
- **Input variables are scaled from 0 (low adaptive capacity) to 1 (high adaptive capacity)**, with category scores then added up to create a composite BRIC score for each county.
- The CAVA project team gathered each region's counties' BRIC scores to create a **composite score for each region**.

Assessing Adaptive Capacity

BRIC category scores (county level, aggregated to regions) provide a comparative view of community resilience characteristics that may be helpful in designing and targeting policy.

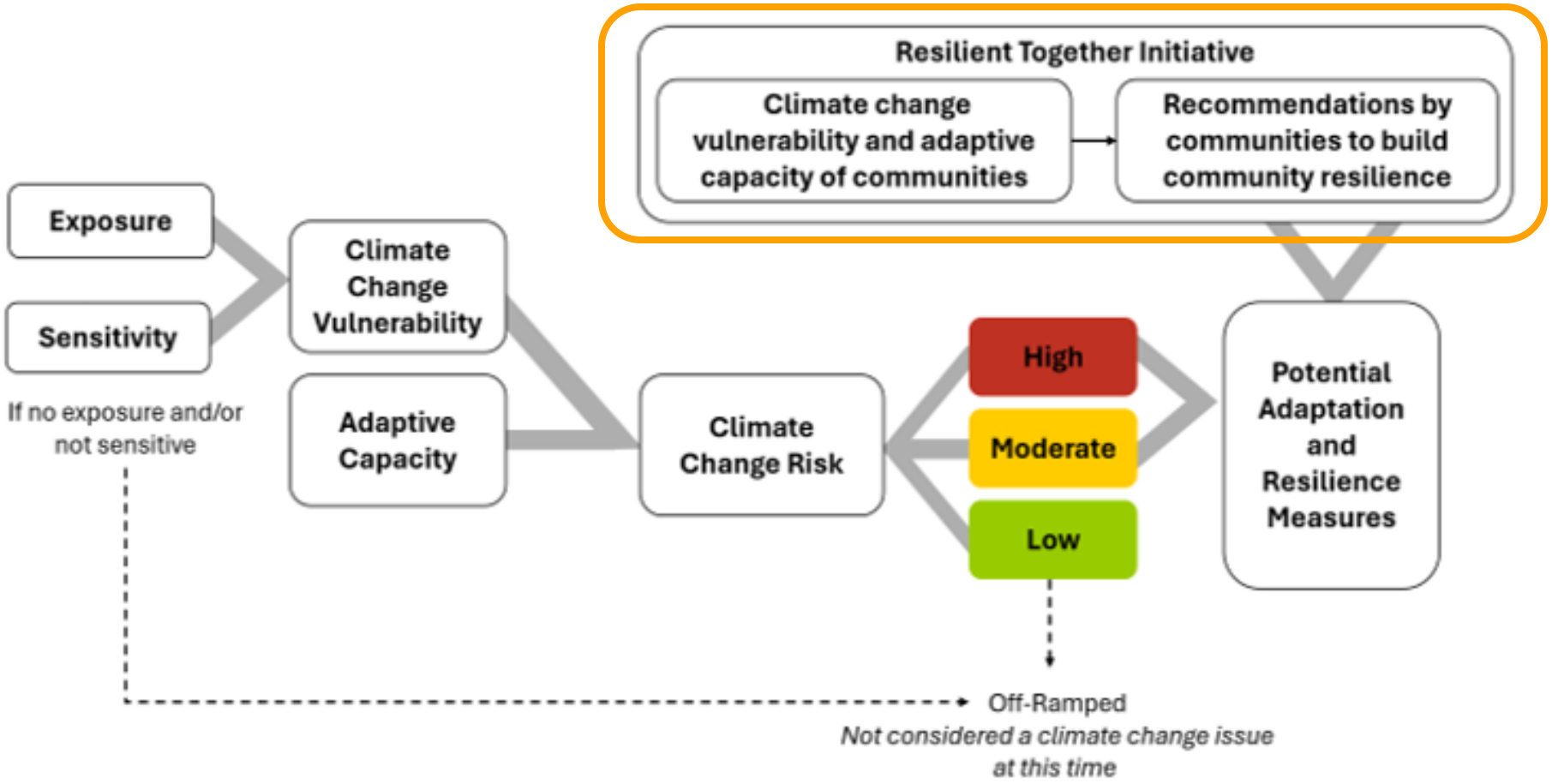
TABLE 5. BRIC Category and Composite Scores for PG&E Regions

Region	Bay Area Region	San Joaquin Valley Region	North Valley, Sacramento & Sierra Region	North Coast Region	Central Coast Region
Social	0.683	0.611	0.641	0.618	0.654
Economic	0.515	0.460	0.459	0.427	0.477
Community Capital	0.289	0.315	0.331	0.344	0.302
Institutional	0.379	0.377	0.389	0.371	0.402
Infrastructural	0.325	0.268	0.255	0.238	0.288
Environmental	0.555	0.498	0.535	0.563	0.528
BRIC Composite Score	**0.458**	**0.422**	**0.435**	**0.427**	**0.442**

Where Adaptive Capacity Fits Into The CAVA Process

Assessing adaptive capacity helped PG&E understand specific challenges of each region and provided a data-driven counterpart to challenges identified by community members.

More work remains to be done to accommodate this kind of information in the broader investment planning process.



Other Data Sets and Metrics

There are a variety of other data sets and metrics related to community engagement:

- *Sandia Resilience Node Cluster Analysis Tool (reNCAT)*
- *FEMA Resilience Analysis and Planning Tool (RAPT)*
- *CPUC Affordability Ratio Calculator*
- *LBNL Interruption Cost Estimator*
- *CalEnviroScreen 4.0*
- *The Public Health Alliance of SoCal Healthy Places Index (HPI)*
- *Federal Climate and Economic Justice (CEJ) Screening Tool*
- *EPA Environmental Justice Screening and Mapping Tool (EJScreen)*
- *CDC/ATSDR Social Vulnerability Index*

Focusing Metrics on Actionable Projects

- It is important to decide the **role of determining adaptive capacity in the CAVA process**.
- Focusing metrics on **actionable projects** leads to more **meaningful engagement and more useful results**.
- One actionable option is for utilities to determine **readiness of communities to partner on shared resilience projects,** an important aspect of local adaptive capacity.
- Community engagement and metrics should center around **partnered resilience projects with local governments that are mutually beneficial**.

Local Government Engagement

Quantitative Adaptive Readiness Assessment

- In addition to looking at risk and vulnerability, we need to understand who is ready to work with us on adaptation initiatives.

- In addition to the tools already discussed, there are existing quantitative frameworks to calculate a “readiness” score for communities.
  - Readiness = the capacity a society has to mobilize adaptation investments from private sectors and to target investments more effectively.

- Specific methodologies vary, but a focus on readiness may help determine the kind of partnered action that is appropriate/possible.

- Readiness characteristics can be considered within the context of DVC communities to avoid mistargeting to non-DVC communities with relatively high levels of resourcing.

Note: Quantitative Adaptive Readiness Assessment is adapted from Notre Dame Global Adaptation Initiative (ND-GAIN) Urban Adaptation Assessment

Summary of Insights

- The PG&E CAVA used the **BRIC Index to assess the adaptive capacity** across regions as a complementary tool to align with RTAG feedback.

- **There are a variety of other data sets and metrics related to community engagement.** Each has their own benefits and limitations.

- It is important to decide the **role of determining adaptive capacity in the CAVA process**.