New York Climate Justice Working Group

Considerations for Indicator Selection and DAC Scoring Approach

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General Steps Toward DAC Designation

0. Objectives

1. Screening Criteria
   (Indicators and Data)

2. Scoring Approach
   (Combine Indicators)

3. DAC Designation
   (Yes/No Classification)

4. Evaluate Results
   (Designated Communities)

5. Stakeholder and Public Review

ITERATE  ITERATE
1. **Screening Criteria**  
(Indicators and Data)

1. Criteria =  
   (a) factors/concepts,  
   (b) indicators,  
   (c) data sources

2. Evaluate value of criteria (rubric)

3. Census geography level

4. Gather data

5. Scoring Approach  
(Combine Indicators)

1. Statewide or upstate/downstate scores?

2. Score on each indicator (e.g., percentile?)

3. Narrow list (e.g., correlations)

4. Score within component/pillar

5. Score across components

6. **DAC Designation**  
(Yes/No Classification)

1. Apply threshold(s) for DAC classification

2. Develop scenarios for DAC classification

3. Dashboard and/or maps of scenarios

7. **Evaluate Results**  
(Designated Communities)

1. Regional distribution (e.g., upstate/downstate; Economic Development regions)

2. Overlap of DAC and LMI or EJ communities

3. Revisit objectives

8. **Stakeholder and Public Review**

1. Documentation of process/method/decisions

2. Present recommended scenario(s)

3. Solicit and receive comments

4. Review, incorporate or respond to comments
### Screening Criteria (Indicators and Data)

1. **Identify criteria:** (a) factors/concepts, (b) indicators, (c) data sources
2. **Evaluate value of criteria**
3. **Gather data to represent indicator @ census geography level**

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**Scoring Approach (Combine Indicators)**
- Difference between factor/concept and indicators/metrics
- Develop/apply evaluation rubric?
- What census geography to use?
- Level of effort/time to transform to census geographies

**DAC Designation (Yes/No Classification)**

**Evaluate Results (Designated Communities)**

**Stakeholder and Public Review**

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1. Identify criteria: (a) factors/concepts, (b) indicators, (c) data sources
2. Evaluate value of criteria
3. Gather data to represent indicator @ census geography level
### Anatomy of an Indicator (Example)

“Areas with concentrations of people that are of low income…”

<table>
<thead>
<tr>
<th>FACTOR / CONCEPT</th>
<th>INDICATOR (EXAMPLE*)</th>
<th>METRIC (EXAMPLE)</th>
<th>DATA SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>Poverty Status</td>
<td>Percent of families with incomes ≤ Federal Poverty Level (100% or 200%) for household size</td>
<td>Census</td>
</tr>
<tr>
<td></td>
<td>Median Income</td>
<td>Median household income</td>
<td>Census</td>
</tr>
<tr>
<td></td>
<td>Median Income vs. Area Median Income</td>
<td>Median household income ≤ 60% Area Median Income</td>
<td>Census and</td>
</tr>
<tr>
<td></td>
<td>HUD Qualified Census Tracts</td>
<td>Binary indicator of QCT (50% of HHs with incomes &lt;60% of area median or poverty rate of 25% or more)</td>
<td>HUD</td>
</tr>
</tbody>
</table>

*These are examples of indicators and metrics and are not intended as recommendations*
Indicator Inclusion Considerations
California’s Criteria for Indicator Selection

An indicator should provide a measure that is relevant to the component it represents, in the context of the 2005 CalEPA cumulative impacts definition.

- Indicators should represent widespread concerns related to pollution in California.
- The indicators taken together should provide a good representation of each component.
- Pollution burden indicators should relate to issues that may be potentially actionable by CalEPA boards and departments.
- Population characteristics indicators should represent demographic factors known to influence vulnerability to disease.
- Data for the indicator should be available for the entire state at the census tract level geographical unit or translatable to the census tract level.
- Data should be of sufficient quality, and be: Complete, Accurate, Current.
“The working group, in consultation with the department, the departments of health and labor, the New York state energy and research development authority, and the environmental justice advisory group, will establish criteria to identify disadvantaged communities for the purposes of co-pollutant reductions, greenhouse gas emissions reductions, regulatory impact statements, and the allocation of investments related to this article.”
Indicator Inclusion Considerations

Example Rubric for Selecting Indicators

Does the indicator…
…Directly address language of legislation?
…Represent risks, threats or vulnerabilities related to greenhouse gas emissions, criteria emissions or climate change?
… Represent risks, threats or vulnerabilities that are potentially actionable by New York State agencies?

How well does it…
…Represent the component or concept/factor? (e.g., direct indicator or proxy?)
…Contribute something unique to scoring? (vs. high correlation with other indicators)

Is the data…
…Available statewide and/or at geographic level needed?
…Accurate (limited measurement error?)
…Current? (and/or updated regularly?)
…Possible to obtain/include within timeline?

What are the most important things for the definition to do?

What is the CJWG process for *submitting* an indicator to be considered?

What is the CJWG process for vetting and narrowing the indicators and metrics that CJWG members propose?
## Uniqueness (Example)

“Areas vulnerable to the impacts of climate change such as...[...]'...urban heat island effect.”

<table>
<thead>
<tr>
<th>Factor / Dimension</th>
<th>Indicator (Example*)</th>
<th>Metric (Example)</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Heat Island</td>
<td>Heat Vulnerability Index</td>
<td>Includes socioeconomic factors, age, language and environmental vulnerability</td>
<td>New York State Department of Health</td>
</tr>
<tr>
<td></td>
<td>Environmental Component of HVI</td>
<td>Housing density, highly developed land, open undeveloped land and housing stock</td>
<td>New York State Department of Health</td>
</tr>
<tr>
<td></td>
<td>NYC Heat Vulnerability Index</td>
<td>% Vegetative Cover Temperature on a hot August day</td>
<td>NYC DOHMH</td>
</tr>
<tr>
<td></td>
<td>Temperature change projections</td>
<td>Different projections for 2020s, 2050s, 2080s</td>
<td>NY ClimAid models</td>
</tr>
</tbody>
</table>

*Socioeconomic factors and language may be considered elsewhere

*This indicator seems more unique, but is comprised of 4 metrics – You could include all or some of them

*These are examples of indicators and metrics and are not intended as recommendations
## Data Availability (Example)

“Areas vulnerable to the impacts of climate change such as...[...]...urban heat island effect.”

<table>
<thead>
<tr>
<th>FACTOR / DIMENSION</th>
<th>INDICATOR (EXAMPLE*)</th>
<th>METRIC (EXAMPLE)</th>
<th>DATA SOURCE</th>
<th>SMALLEST GEOGRAPHY</th>
<th>DATA READILY AVAILABLE FOR CENSUS TRACTS?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Heat Island</td>
<td>Heat Vulnerability Index</td>
<td>Includes socioeconomic, age, language and environmental vulnerability</td>
<td>New York State Department of Health</td>
<td>Census tract</td>
<td>Partial (does not cover NYC)</td>
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<td></td>
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<td>Census tract</td>
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</tr>
<tr>
<td></td>
<td>NYC Heat Vulnerability Index</td>
<td>% Vegetative Cover Temperature on a hot August day</td>
<td>NYC DOHMH</td>
<td>NYC community districts</td>
<td>Maybe for NYC (community districts should map to CTs)</td>
</tr>
<tr>
<td></td>
<td>Temperature change projections</td>
<td>Different projections for 2020s, 2050s, 2080s</td>
<td>NY ClimAid models</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

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“Communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate-income households.”

“Disadvantaged communities shall be identified based on geographic, public health, environmental hazard, and socioeconomic criteria, which shall include but are not limited to:

Areas burdened by cumulative environmental pollution and other hazards that can lead to negative public health effects.

Areas with concentrations of people that are of low income, high unemployment, high rent burden, low levels of home ownership, low level of educational attainment, or members of groups that have historically experienced discrimination on the basis of race or ethnicity.

Areas vulnerable to the impacts of climate change such as flooding, storm surges, and urban heat island effect.”
About ILLUME Advising

Ethnographic research, market research and analytics around energy needs and barriers

People and households historically underserved by energy programs and services

Human-centered research as a platform for policy engagement

National scale, including Massachusetts, California, Arizona, Minnesota, Oregon, New York and EPA/DOE