Sustainable Indicators

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Coney Island 7033 Miles
Showers
Tokyo 34 Mi 54 Km 17 Mi
Soul 50 Mi 80 Km 32 Mi
Burbank
Candy Bar Chart

Amount Of Chocolate

- Almond Joy
- Crunch
- Krackel
- Butterfinger
- Hershey's Milk Chocolate
- KitKat
- BabyRuth
Dashboard of Sustainability, http://esl.jrc.it/dc/pics/ppi_fut.gif
What is An “Indicator?”

• An indicator is something that helps you understand where you are, which way you are going and how far you are from where you want to be.
Purpose of Indicators

• To be able to understand and learn what is going on relative to the subject so that informed decisions can be made
Types of Indicators

- **Category** – Environmental, Social, Economic
- **Retrospective** – Recycling rates
- **Predictive** – Greenhouse gas projections
- **Goal Indicator Matrix** – energy use to waste production; ...to income
- **Pressure-State-Response-Impact**
- **Endowments** - # of college degrees to salary levels
- **Systems** – population/acre
## Coastal Comparative Examples

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Sustainable</th>
<th>New Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita income</td>
<td>Amount of people earning a wage that can support dislocation and employment disruption caused by disasters</td>
<td>Changes focus from how much people have to the amount people need to deal with major adversity</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>Ratio of tax revenue to support humans living in flood prone areas versus safe areas</td>
<td>Measures underlying subsidies that may distort public policy</td>
</tr>
<tr>
<td>Number of fishing permits</td>
<td>Ratio of permits awarded versus rates of regeneration</td>
<td>Changes focus from sheer numbers to ratio needed for sustainable social /economic development</td>
</tr>
</tbody>
</table>
### Critical Issue #1: Conceptual Framework

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Recommendation</th>
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</thead>
</table>
| • What is our agreed understanding of sustainable development such that it will help us make decisions? | • Do this first!  
• Codify meaning and remind people often  
• Process is as important as result |

- **Values**  
- **Goals**  
- **Definition**
Critical Issue #2: Definitional Ambiguity

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>• Words have meaning and they are all subjective</td>
<td>• Define terms second!</td>
</tr>
<tr>
<td></td>
<td>– Sustain, develop, community, indicator, carrying capacity</td>
</tr>
</tbody>
</table>

GROWTH

SUSTAINABILITY
Critical Issue #3: Time is of the Essence

<table>
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<tr>
<td>• How much time does a sustainable indicator require?</td>
<td>• Seek generational equity</td>
</tr>
<tr>
<td></td>
<td>• Sustainability = long-term</td>
</tr>
</tbody>
</table>

“In our every deliberation we must consider the impact of our decisions on the next seven generations.”

-From the Great Law of the Iroquois Confederacy
Critical Issue #4: How Many?

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<th>Recommendation</th>
</tr>
</thead>
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<tr>
<td>• Complex systems</td>
<td>• Quality trumps quantity</td>
</tr>
<tr>
<td>• Multiple variables</td>
<td>• Keep user and purpose in mind</td>
</tr>
<tr>
<td>• Personal issue</td>
<td></td>
</tr>
</tbody>
</table>

8-12 KPIs – McKinney Rogers

“Small as possible, but as large as necessary” – Hartmut Bossel

76 data sets into 21 indicators – ESI, Yale

143 (now about 50) – UNCSD

“More than One” – Paradigms of Progress
Recommendations – Next Steps

• Process is very important
• Secure leadership consensus on terminology - **FIRST**
  – Principles, values and definition
• Develop small set of effective **CORE** indicators
  – Determine types of indicators wanted
  – Test suitability
• Can’t do enough education and outreach
• Take a systems view
• Workshops
  – Definitional, indicator selection process, measurement methods, etc...
Stress Reduction Kit

Bang Head Here

Directions:
1. Place kit on firm surface.
2. Follow directions in circle.
3. Repeat step 2 as necessary.
4. If unconscious, cease stress reduction activity.