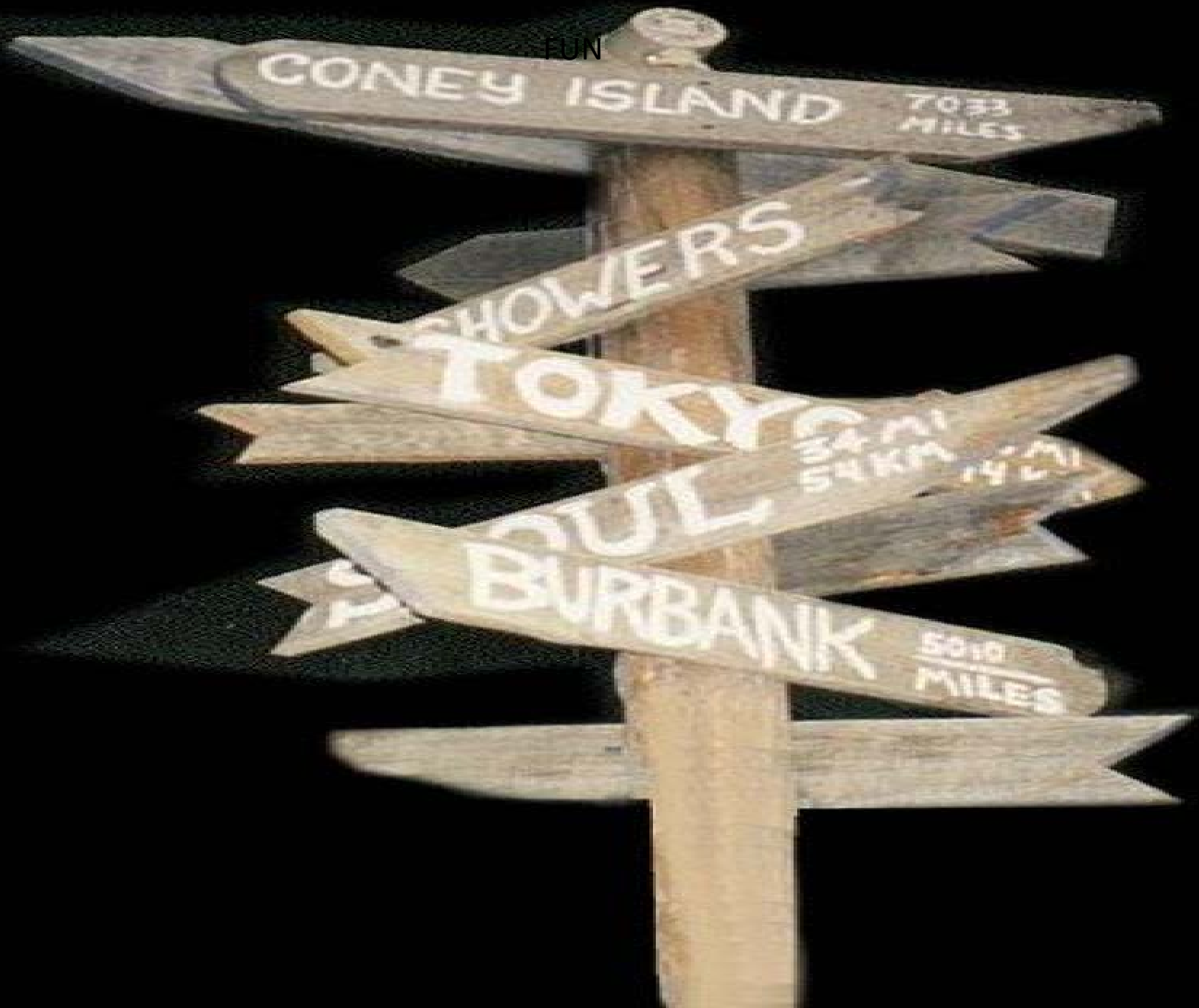


Sustainable Indicators



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FUN



CONEY ISLAND

7033
MILES

SHOWERS

TOKYO

34 KM
54 KM
19 L

SOUL

BURBANK

5010
MILES





US Debt Clock.org

STATE DEBT CLOCKS



STATE FLAG



STATE SEAL

TEXAS

STATE & LOCAL

POPULATION

25,769,102

UNEMPLOYED

985,706

FOOD STAMP RECIPIENTS

4,005,757

GDP

\$ 1,159,678,559,193

DEBT

\$ 218,022,594,558

DEBT TO GDP RATIO

18.8002473%

REVENUE

\$ 143,305,561,546

SPENDING

\$ 185,472,437,767

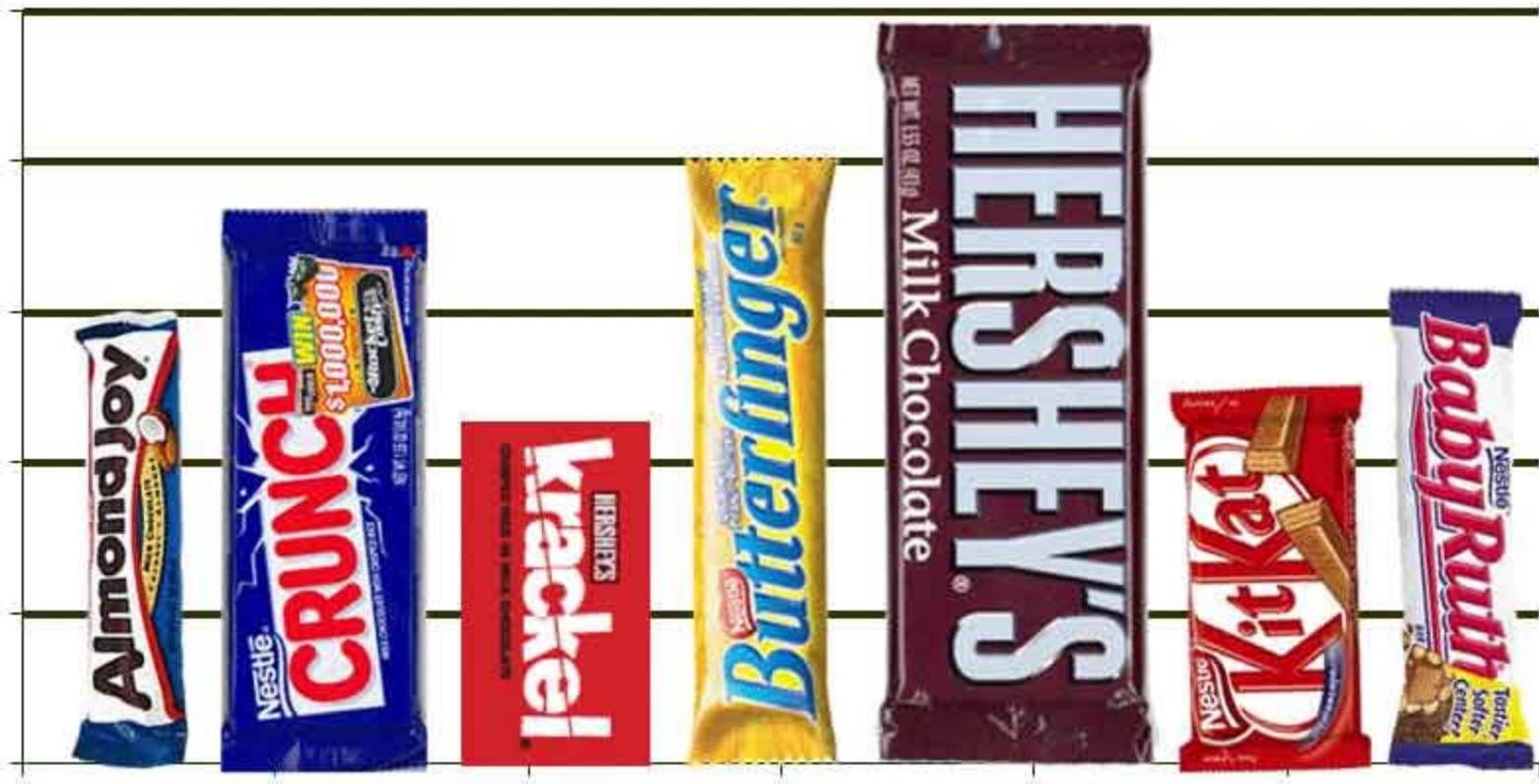
DEBT PER CITIZEN

\$ 8,465

[MORTGAGE/LOAN CALCULATOR](#)
[AUTO SALES](#)
[ABOUT](#)
[ENERGY OUTPUT](#)
[GOLD/PRECIOUS METALS](#)

Candy Bar Chart

Amount Of Chocolate

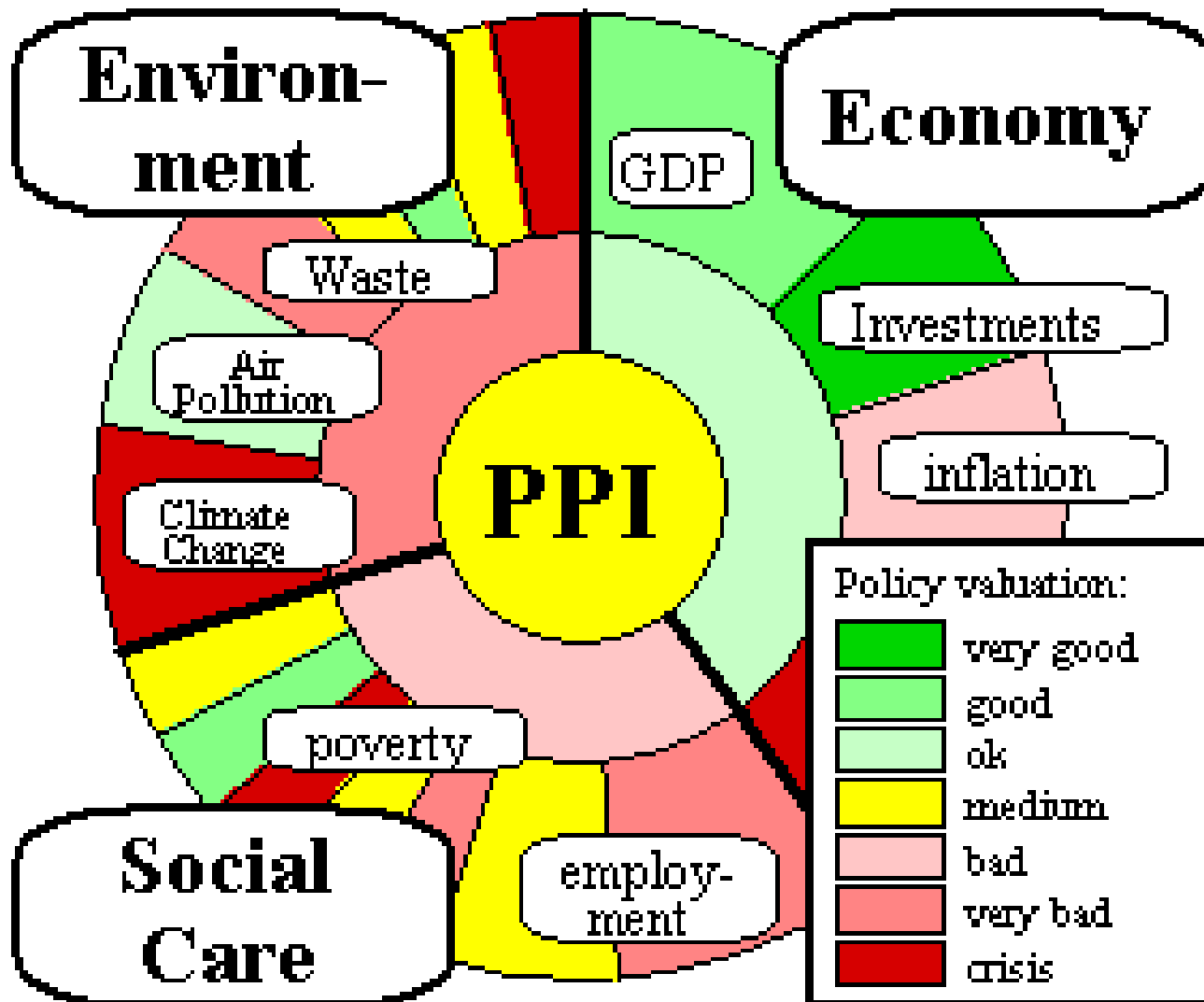




KWHR

Rr 27 $\frac{7}{9}$

68775-3



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



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



Critical Issue #1: Conceptual Framework

Challenge

- What is our agreed understanding of sustainable development such that it will help us make decisions?

Recommendation

- Do this first!
- Codify meaning and remind people often
- Process is as important as result

Values

Goals

Definition



Critical Issue #2: Definitional Ambiguity

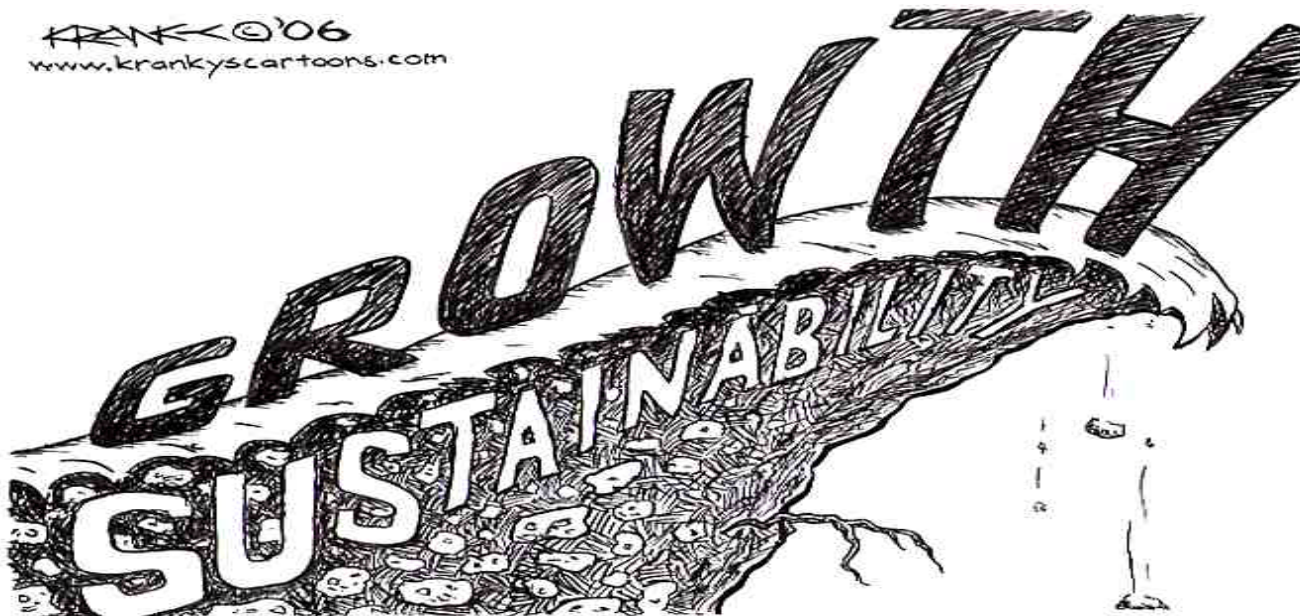
Challenge

- Words have meaning and they are all subjective

Recommendation

- Define terms second!
 - Sustain, develop, community, indicator, carrying capacity

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www.krankyscartoons.com





Critical Issue #3: Time is of the Essence

Challenge

- How much time does a sustainable indicator require?

Recommendation

- Seek generational equity
- Sustainability = long-term

“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?

Challenge

- Complex systems
- Multiple variables
- Personal issue

Recommendation

- Quality trumps quantity
- Keep user and purpose in mind

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) – UNCSO

“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.

