

Some Issues to Consider in Developing Indicators (from Veale 2010 PhD Thesis)

Table 3.2. Properties of Good Indicators

Properties	Description
Specific / Valid	Relevant to the scale of phenomenon, sensitive to incremental changes or stressors in the system, pertinent to the stated goals or outcomes being measured, not redundant with other indicators, and not subject to external influences.
Accurate	Accurately measures the phenomenon in an effective, clear, and scientifically defensible way.
Reliable / Verifiable	Underlying data are consistent regardless of who collects them or when they are collected.
Attainable	Underlying data are affordable, available within a reasonable time-scale and at intervals that are appropriate, useful, and obtainable with reasonable effort; data collection uses the same measurement instrument or protocol.
Comparable	Changes can be compared and aggregated spatially and/or temporally.
Responsive / Timebound	Detects change in a timely manner (early warning and gradual) and anticipates future change over the long-term (25-50 years).
Relevant	Provides pertinent information about the phenomenon being tracked, reflects stakeholders' concerns, and is useful and important to them.
Integrative/Information Richness	Demonstrates linkages among the environmental, social, and economic systems and reflects a spectrum of conditions ranging from living systems back through the chemical and physical environments back to the sources of stress.
Flexible	Easy to update as conditions change, new issues arise, and responses to some problems begin to work.
Interpretable	Can be interpreted against a baseline condition, can facilitate an analysis of trends and is based on data collected over time using a standard method of collection. Capable of distinguishing acceptable from unacceptable conditions in a scientifically and legally defensible manner.
Sufficient	Can assess the scope of change, address the issue of carrying capacity and suggest a course of action.
Participatory	Developed and accepted by the people in the watershed. The process of setting and assessing indicators should be empowering.
Understandable	Understandable to non-technical audiences including decision makers and the public.
Attractive to the Media	Can be used to monitor, analyze, and communicate local trends to the general public.

Table 3.6. Community Indicator Initiatives –

Indicator Stage

- Lessons Learned

Development of Indicators

- A clearly defined, persistent vision helps define goals, foster commitment, and engage people.
- A participatory process for developing indicators is valuable and worthwhile. It can raise awareness about a problem, foster community discussion, mutual learning and ownership, build connections and coalitions among people, and broaden networks. This creates a political environment that provides a foundation for change over time and embeds sustainability into the policy culture.
- Sound project management is required to keep the process moving forward.
- Indicators should be meaningful and useful, recognizing that there are several 'communities of interest'. The inclusion of subjective data enhances objective data. A mix of quantitative and qualitative indicators should be considered and made explicit.
- A range of implementers must be involved in indicator development because responsibility for and solutions to complex issues are shared.
- New indicator frameworks that blend expert-driven and community-based approaches need to be developed and tested in order to better understand environmental, social, and economic system interactions and to formulate more relevant indicators.
- Data deficiencies can be addressed by acknowledging gaps or seeking additional data. Changes in data or analysis methods can be addressed by recalculating data according to the new methods.
- Important linkages among indicators over time and space should be identified. This requires investment in research, planning, and analysis, a diversity of perspectives, and an interdisciplinary approach.

Publishing and Distributing the Report Card

- Indicator reports need to be easily understood by the intended audience and the indicators used must produce information that resonates with them.
- Effective dissemination strategies are required to ensure that target audiences are aware of and have easy, convenient access to indicator reports.
- Prominent community leaders (champions) who actively promote the indicator report give it visibility, credibility, and status in the community.

Action-Oriented Steps

- Marketing indicator initiatives is critical to broaden community awareness, understanding, and support. A marketing strategy to focus the work directly with local media, general public, business leaders, and key organizations will ensure that they are aware of and regularly refer to the indicators information.
- Indicator initiatives should be closely integrated with other community planning initiatives.
- Outreach and follow-up actions after the release of an indicator report help to broaden implementation beyond the frontline of participants (e.g., adopt-an-indicator program, advocacy task forces, media campaigns, grant proposals).
- Efforts to increase community visibility to significant indicator trends are important to motivate positive trends (e.g., commending organizations that positively influence the direction of certain indicator trend lines).
- The process of developing indicators should not drain all of the available energy and resources. Resources, enthusiasm, and focus are needed for follow-up activities.

Other Findings

- On- the-ground experience tends to carry more weight with the public and decision makers than information.
 - Lack of sustained funding to produce successive indicator reports undermines the initiative.
 - A focus on and celebration of small, incremental successes will keep participants engaged.
 - The lead organization needs to be credible and respected and/or regarded as a neutral convener.
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