USING SUSTAINABILITY INDICATORS FOR PARTICIPATORY RURAL GOVERNANCE

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Need for normatively informed and locally derived approaches to understanding sustainable development

Lack of clarity over meaning of sustainable development in rural and resource-dependent communities and regions\(^1\)

Need for evidence to demonstrate need and potential of collaborative approaches to rural governance in Newfoundland and Labrador, given current institutional context\(^2\)

Promise but mostly unconfirmed potential of sustainability indicators as a tool for more inclusive local governance\(^3\)
Sustainability Indicators (SIs):

❖ Transition from technical, expert-led tools to use in participatory local planning and development⁴

❖ Balance of bottom-up & top-down:
  ❖ Local aspirations vs. global sustainability priorities
  ❖ Community perceptions of well-being vs. official (e.g. Census) data

❖ Positive outcomes in communities
  ❖ Articulating local visions⁵
  ❖ Encouraging dialogue⁶
  ❖ Trust-building⁷
  ❖ Learning and reflection⁸
  ❖ Uncovering assets in communities labelled as deficient⁹
“…millions of dollars and much time…has been wasted on preparing national, state, and local indicator reports that remain on the shelf gathering dust” (Innes & Booher, 1999: p. 2).\textsuperscript{10}

“Here we are, Sustainable Seattle, an organization that changed the world, and yet it hasn’t created real change” (Cofounder Laura Musikanski, 2012, quoted in Holden, 2013: p. 93).\textsuperscript{11}
1. What roles can sustainability indicators and monitoring play in supporting more participatory governance and improving social, environmental, and economic well-being in rural, resource-based regions?

2. What factors lead to the incorporation of sustainability monitoring into governance?
   - How can sense of place be measured and mobilized by stakeholders to guide place-based development?
   - What role does communication play in creating a shared vision derived from indicator-based processes?
   - How do these processes foster transformative learning among regional stakeholders?
   - What other factors could potentially lead to the incorporation of sustainability monitoring into governance?

3. What forms of governance emerge from the use of SIs in participatory processes?
Collaborative, multi-level governance

- Shared decision-making based on sharing of resources & responsibilities between diverse group of actors\(^1\)\(^2\)
- Need for more effective governance in complex decision environment of sustainable development: multiple overlapping jurisdictions, unclear authority, need for broader ownership of agenda beyond government\(^1\)\(^3\)
- Mutual exchange of time, trust, and turf\(^1\)\(^4\)
- Focus on underlying values, images, principles motivating governing actors and the instruments they use\(^1\)\(^5\)
- Collaborative governance in rural watersheds\(^1\)\(^6\)

Learning and adaptation

- Need to assess learning as an outcome of CG\(^1\)\(^7\)
  - Social learning as observed in CG and indicator initiatives\(^1\)\(^8\)
  - Transformative learning – shift in values and beliefs\(^1\)\(^9\)
    - Governance for sustainable development requires not just new knowledge, but a transformation in underlying values of governing actors
    - Parallels between focus on values, reflection and communication/discourse\(^2\)\(^0\)
TRANSFORMATIVE COLLABORATIVE GOVERNANCE FOR SUSTAINABLE COMMUNITIES

INITIAL CONDITIONS
- Power-resource-knowledge symmetry (Ansell & Gash, 2008)
- Incentives for participation (Ansell & Gash, 2008)
- Pre-history of cooperation/initial level of trust (Ansell & Gash, 2008)
- Enabling plans or policies at local, regional, national, or international level (Moreno-Pires, 2011)
- Culture of transparency and open decision-making/basic trust of government (Lowery, 2013)
- Monitoring capacity (data, human resources, technical expertise, etc.) (Moreno-Pires, 2011)
- Links with national and international communities of practice (Moreno-Pires, 2011)

1. VISIONING
   - Specify goals for sustainable development (Reed et al., 2006)
   - Multi-issue, objective, sector, (Vodden, 2015)
   - Metagovernance; governing images and principles (Kooiman, 2001)
   - TL Stages: disorienting dilemma, self-examination (Mezicrow, 2006)

2. IDENTIFYING ASSETS & THREATS
   - Identify system boundaries & stakeholders; detail social & env. Context & Links to other systems; identify potential uses, indicators, evaluate potential indicators with user groups; finalize appropriate indicators; establish baselines and/or targets/thresholds (Reed et al., 2006)
   - TL Stages: critical assessment, acknowledgment of shared experience (Mezicrow, 2006)

3. MEASURING ASSETS & THREATS
   - Identify system boundaries & stakeholders; detail social & env. Context & Links to other systems; collect, analyze, & disseminate data; assess progress towards sustainability goals/targets (Reed et al., 2006)
   - TL Stages: critical assessment, acknowledgment of shared experience (Mezicrow, 2006)

4. ARRANGEMENTS
   - Develop strategies to reach sustainability goals (Reed et al., 2006)
   - Institutional design (Ansell & Gash, 2008)
   - Facilitative leadership (Ansell & Gash, 2008)
   - Second order governance (governing institutions) (Kooiman, 2001)
   - Formal & Informal mechanisms/relationships (Vodden, 2015)
   - TL Stages: Exploration, planning, learning, trying (Mezicrow, 2006)

5. IMPLEMENTING
   - Adjust strategies to ensure goals are met (Reed et al., 2006)
   - Facilitative leadership (Ansell & Gash, 2008)
   - Sharing resources, responsibilities & decision-making authority (Vodden, 2015)
   - First-order governance (governing instruments) (Kooiman, 2001)
   - TL Stages: Exploration, planning, learning, trying, building competence in new roles & relationships (Mezicrow, 2006)

6. RE-ASSESSING PROGRESS
   - Collect, analyze, & disseminate data; assess progress towards goal/targets; adjust strategies to ensure goals are met (Reed et al., 2006)
   - Intermediate outcomes (Ansell & Gash, 2008)
   - TL Stages: building competence in new roles & relationships, re-integration into former life & practices (Mezicrow, 2006)

GOVERNANCE CRITERIA
- Key role for local actors, stakeholder engagement
- Consensus-building approach
- Multi-issue, objective, sector
- Formal & informal mechanisms & relationships
- Sharing of resources, responsibilities, & decision-making
- Trust & shared interests
- Free & open discourse
PROPOSED METHODS

Meta-analysis

❖ Literature search
  ❖ Database keyword search (Scopus, Web of Science, Google Scholar, etc.)
  ❖ Professional associations/organizations (Community Indicator Consortium, Vital Signs, Sustainable Measures, etc.)

❖ Systematic qualitative review using analytical framework currently under development

Case studies of SI initiatives in rural communities & regions

❖ Community-based research, participatory approach
❖ Grounded theory-informed approach\textsuperscript{21}; comparative case studies\textsuperscript{22}
❖ 2-3 case study regions
  ❖ Semi-structured interviews, workshops, survey?
  ❖ Thematic analysis (coding), participatory evaluation, statistical analysis of indicators?
1992 Moratorium brought (un)sustainability of ecological, social, & economic systems into international focus

Communities large and small striving to reinvent local economies
- Growth in tourism
- Instability of oil & gas revenues
- Interest in knowledge-based sectors to complement primary industries

Challenges facing rural sustainability
- 47% of residents in rural/small-town areas\(^{23}\), but provincial policy favours urban centres
- No regional level of government
- Dismantling of rural development institutions\(^{24}\)
- Provincial & regional initiatives to increase public access/use of data:
  - Community Accounts
  - Vital Signs
  - Asset mapping and SI work in a handful of communities
SUSTAINABILITY IN RURAL NL
Sources included to date for case ID:
- Community Indicator Consortium database (185)
- Vital Signs (41)
- Previous literature review (3)
- Personal contact (2)

Inclusion criteria
- North American
- Community or regional scale
- Sector/issue-specific initiatives included for now, may be excluded later
Factors examined to date:

- Scale of initiative
- Duration of initiative
  - Signs of inactivity (>5 yrs. since last report, broken website link)
- Rural vs. urban
  - Located in a CMA/MSA?
  - Small-medium CAs (20K-60K)?
  - Thresholds
  - Conservative estimate — when in doubt, include area as rural, investigate deeper later on
- Other potentially important common factors
  - Tourism dependent communities?
  - Eco-region focus (e.g. watershed, valley, etc.)?
META-ANALYSIS

- 231 total initiatives found to date
- 177 appear currently active (76.6%)
- 3.5 years on average between first SI report and most recent
- 164 in US (71%), 67 in Canada (29%)
Number of SI Initiatives by Canadian Province

- **BC, 24**
- **ON, 22**
- **AB, 11**
- **MB, 3**
- **QC, 2**
- **NB, 2**
- **SK, 2**
- **NL, 1**

 META-ANALYSIS
Top 10 US States by Number of SI Initiatives

- CA
- WA
- FL
- NY
- TX
- PA
- MI
- CO
- MD
- MN
Prevalence of SI Initiative Scale by Country

- Municipal: US 40, Canada 60
- Metropolitan area: US 30, Canada 50
- County: US 50, Canada 40
- Multi-county: US 40, Canada 30
- Intra-provincial region: US 10, Canada 20
- Indigenous reserve: US 5, Canada 15

US vs Canada
META-ANALYSIS

Number and Longevity of Initiatives by Geographic Location

- Large CA (60,000-100,000+)
  - Suspected inactive: 3.7
  - Suspected active: 2.7
- Mid-sized CA (30,000-60,000)
  - Average duration: 2.6
- Small CA (<30,000)
  - Average duration: 1.8
- Non-metro
  - Average duration: 1.8
- Partially in metro area
  - Average duration: 4.1

Average duration of initiatives (years)
No. and Longevity of Initiatives by Geographic Focus of Project
Other Common Traits from Cases, by Longevity and Activity Level

- Tourism-dependent: Suspected active 4.0, suspected inactive 2.0
- Eco-region: Average duration of initiatives (years)
ANTICIPATED OUTCOMES

❖ Contribution to research on:
  ❖ Sustainability indicators
  ❖ Collaborative governance
  ❖ Rural well-being and sustainability

❖ Support for local and provincial efforts towards community-based, regional approaches to governance and development
REFERENCES

17. Ibid.
24. Hall et al., 2016.
Source: Ansell and Gash (2008)
Social learning in SI development:

Source: Reed et al. (2006)
### Governance criteria of SI projects:

**CONCEPTUAL FRAMEWORK**

<table>
<thead>
<tr>
<th>Governance element</th>
<th>Criteria</th>
<th>Very Weak</th>
<th>Very Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nature of the indicator system</td>
<td>Scope</td>
<td>Restrictive scope of indicators which only incorporates one dimension of sustainable development with negative efforts</td>
<td>Extensive scope of indicators with an effort to integrate several areas and themes of sustainable development.</td>
</tr>
<tr>
<td></td>
<td>Timetable</td>
<td>Very short time for sustainable development implicit in the system</td>
<td>Long term vision for sustainable development implicit in the system.</td>
</tr>
<tr>
<td></td>
<td>Coherence</td>
<td>Very poor relationship among its function, aims and target group of the system</td>
<td>Very good relationship among the function, aims and target group of the system.</td>
</tr>
<tr>
<td>2. Assigning overall responsibility</td>
<td>Political Commitment</td>
<td>Absence of any political support and commitment</td>
<td>High support and commitment from the mayor or executive political board of the local authority.</td>
</tr>
<tr>
<td></td>
<td>Sensitivity to Change</td>
<td>Highly sensitive to political shifts</td>
<td>Very little sensitive to political shifts.</td>
</tr>
<tr>
<td>3. Government coordination</td>
<td>Sectoral Coordination</td>
<td>Only one department of the local council involved</td>
<td>All departments of the local council involved.</td>
</tr>
<tr>
<td></td>
<td>Regional Coordination</td>
<td>Absence of integration of the local set with indicator projects or sustainable development policies of other governmental units.</td>
<td>Very good integration of the local set with indicator projects or sustainable development policies of other governmental units.</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>No training programmes for sustainable development or sustainability indicators within the local authority.</td>
<td>Different training programmes for sustainable development and sustainability indicators within the local authority.</td>
</tr>
<tr>
<td>4. Stakeholders’ involvement</td>
<td>Multi-stakeholder</td>
<td>No involvement of different stakeholders outside the local authority.</td>
<td>Broad involvement of different stakeholders outside the local authority.</td>
</tr>
<tr>
<td></td>
<td>Participation Mechanism</td>
<td>No mechanisms/techniques for participation</td>
<td>Weak number of mechanisms/techniques for participation.</td>
</tr>
<tr>
<td></td>
<td>Feeling of Ownership</td>
<td>Very weak feeling of ownership by the stakeholders involved.</td>
<td>Very strong feeling of ownership by the stakeholders involved.</td>
</tr>
<tr>
<td>5. Links with local plans or strategies</td>
<td>Performance</td>
<td>No integration of the indicators with targets/goals/strategies inserted in local plans/strategies.</td>
<td>Very good integration of the indicators with targets/goals/strategies inserted in local plans/strategies.</td>
</tr>
<tr>
<td></td>
<td>Funding</td>
<td>No integration of funding schemes with indicators.</td>
<td>Very good integration of funding schemes with indicators.</td>
</tr>
<tr>
<td>6. Link with international networks</td>
<td>Learning</td>
<td>No involvement with other international indicator projects</td>
<td>Close involvement with other international indicator projects.</td>
</tr>
<tr>
<td>7. Communication with society</td>
<td>Communication</td>
<td>No communication channels to disclose the indicators</td>
<td>Very and efficient communication channels to disclose the indicators.</td>
</tr>
</tbody>
</table>

Source: Moreno-Pires (2011)
1. The occurrence of a **disorienting dilemma**
2. **Self-examination**, revealing feelings of shame or guilt
3. A **critical assessment** of one’s core assumptions (epistemic, sociocultural, or psychic)
4. **Recognition that one’s predicament is shared with others who have experienced similar difficulties and transformations**
5. **Exploration** of possibilities for new ways to develop roles, relationships, and actions
6. **Planning** new courses of action
7. **Learning** new knowledge and skills required to implement what has been planned
8. **Trying** out new roles and relationships
9. **Gaining competence and confidence in newly acquired roles and relationships**
10. **Re-integrating into existing life and practices** with the insight of newfound perspectives

Source: Kitchenham (2008)
PHASE 1: QUALITATIVE META-ANALYSIS

“The analysis of analyses” (Glass, 1977, 3).

Table 1: Typology of research synthesis approaches according to the used source of data and the method of integration.

PRELIMINARY RESULTS OF META-ANALYSIS