National workshop:
Generating climate change and disasters indicators for policy decision-making in Saint Vincent and The Grenadines
27, 28 and 29 June 2022

Introduction to ECLAC’s methodology to produce environment, climate change and disaster indicators

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1. Principles for constructing indicator sets

2. Methodological road map for constructing indicators
   - Stage I: Preparation
   - Stage II: Design and construction of indicators
   - Stage III: Institutionalization

3. Products resulting from the indicator-building process
Methodological Guide to develop Environment and Sustainable Development Indicators in Latin American and Caribbean countries

It is based on an inter-institutional collaborative work approach to build and agree on the technical specifications of relevant and quality indicators set that describe or quantitatively report on the situation and trends of:

- Environment as a whole
- Components of the environment (water, air quality, forest, ecosystems and biodiversity, renewable energy and energy efficiency, agri-environmental, residuals, environmental health, environmental management, etc.)
- Multi-Domain processes:
  - Climate change
  - Disasters

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Updated 2021, pending print
1 Principles for constructing indicator sets
Principle 1: Teamwork and effective organization

- Engage **producers**, processors, compilers and **users** of environmental and multi-domain indicators

- **Inter-institutional team** with work plan, goals and established leadership

- **Capacity building** for common methodology, concepts and tools to better construct the indicator set
Principle 2: Inter-institutional coordination and cooperation

Clear organization of cooperation among institutions and levels

Institution A
- Political level: Minister, undersecretary...
- Technical level
  - Operational

Institution B
- Political level: Minister, undersecretary...
- Technical level
  - Operational

Interinstitutional

Intra-institutional

Political level:
Minister, undersecretary...

Technical level
Operational
**Principle 3: Demand-driven indicator sets**

Building **demand-driven** indicators for decision-makers, **we make better use of limited resources**

<table>
<thead>
<tr>
<th>1. Identification of the most important and critical decisions</th>
<th>2. Identification and selection of the most useful potential indicators</th>
<th>3. Verification of statistical feasibility of the potential indicators</th>
<th>4. Assessment of primary statistical sources for datamining:</th>
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<tr>
<td>(Reports or profiles of environment, development sustainability, the situation of climate change and/or occurrence and impact of disasters in the territory)</td>
<td>(Draft list of potential indicators)</td>
<td>(verification of existence, quality and statistical series and primary data systematization)</td>
<td>• Surveys and Censuses • Quality ground monitoring stations and programs (air, water, soil, etc.) • Remote sensing • Administrative records • Estimates • Scientific research</td>
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Principle 4: Selection of information and coordination of processes

Example 1
- N of days when pollutant a, b and c exceed city norm x
- Monthly statistical tables, pollutants a, b and c minimum and maximum averages city x
- Microdata stations (1...12) air quality city x

Example 2
- Per capita vehicles intensity
- Statistical tables on vehicles in city x
- Census country x

1. Primary Data
2. Processed data and statistics
3. Indicators
Principle 5: Manageable number of indicators (modular progressive approach)

- Each indicator (design, construction, publication, update) requires:
  - a strong investment of time
  - energy
  - dedication (knowledge, coordination, creativity, consultation, decision, consensus building)

- The first set of indicators should be manageable with available resources

- Each indicator counts and must contribute to the whole set

Don’t forget: Less is more!!!
Principle 6: Follow the procedures and take care the statistical quality

- Protect the **quality of the primary data**
- **Describe fully** each indicator using the Methodological Sheet
- **Carry out consultations** with agencies and scientific experts to understand the value of each of the indicators and its main implications.
- Sustain critical working attitude and **frequent evaluations** of the indicators.
Principle 7: User-friendly indicator format

- Indicators should be displayed in an attractive and easily understood by the users.
- Give sufficient time and trained staff to the design phase of the platform of the indicators.

- Carefully select the **appropriate language** used and the presentation for the indicator.
- **Proper selection** of the publication media.
- **Plan and spend time on the launching** of the indicators, complete with media coverage and institutional backing.
Principle 8: Flexible attitude/Perseverance

There are always methodological, institutional, financial, capacity and primary information challenges to face during the work:

- Deal with changes
- Review
- Improve
- Remove

- Identify and develop new potential indicators at any time during their work.
- Avoid inflexibilities of any sort
2 Building indicators: Methodological road map

Stage I: Preparation
Stage II: Design and construction of indicator set
Stage III: Institutionalization and updating
2. Methodological road map

Stage 1: Preparation

1. Building the team
2. Team training
3. Review of institutional context, national relevance and international experiences
4. Review of conceptual frameworks and methodological approaches
5. Prior substantive decisions

Stage 2: Design and construction of Indicator Set

6. Preliminary draft list of potential indicators
7. Assessment of data sources and statistics available to compile indicators
8. Development of Methodological Sheets for all indicators
9. Break-out in thematic specialized teams
10. Selection of indicators for refined set
11. Dissemination template design
12. Indicator set dissemination platform(s) development
13. Development of inter-institutional data transmission sheet
14. Systematization of statistical log

Stage 3: Institutionalization and updating

15. Launch and publication of the Indicator Set/System
16. Institutionalization of Indicator Unit and dedicated team
17. Inter institutional committee or platform institutionalization
18. Indicator set use and strengthening advocacy
19. Updating previous set and new indicators development

METHODOLOGICAL PROCESS
### Stage I: Preparation

#### Inputs
- Explicit mandates
- Methodological manuals, courses, workshops, internships
- Institutional context, national and local background (environmental policies and standards), international experience
- Conceptual frameworks, methodological approaches
- Methodological manuals, discussions between technical personnel & authorities

#### Core Methodological Process (steps)

1. **Step 1. Building the team**
2. **Step 2. Training team**
3. **Step 3. Review of institutional context, national relevance and international experiences**
4. **Step 4. Review of conceptual frameworks and methodological approaches**
5. **Step 5. Prior substantive decisions**

#### Tools

- Inter-institutional agreements, authorities support
- Decisions on Objectives, thematic areas, conceptual framework and methodological approach

#### Final Products

- Team built
- Team trained
- Inter-institutional committee formed

#### Intermediate Products
- Methodological manuals, discussions between technical personnel & authorities
Stage 2. Design and construction of indicator Set

1. Brainstorming, knowledge of team participants
2. Database, Statistical compendiums, Interviews with producers of environment statistics
3. Methodological Sheet
4. Eligibility criteria for indicators
5. Organizing frameworks for indicators in other countries
6. Indicators representation system in other countries
7. Indicator sheets
8. Template and platform for disseminating indicators in other countries
9. Correspondence and agreements
10. Systematization and registration of decisions, changes, additions and foundations
11. Announcement, Political support, Press coverage

6. Preliminary draft list of potential indicators
7. Assessment of data sources and statistics available to compile indicators
8. Development of Methodological Sheet for all indicators
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Data storage
- Preliminary list of potential indicators with sources, institution, available period, format and update periodicity
- Report of environment data and statistics availability
- Complete set of Methodological Sheets for all potential indicators
- Prioritization criteria
- Organizing framework
- Dissemination Template

Structured indicators in an organizing framework and a set of methodological sheets of viable and prioritized indicators

Set of published indicators (Website, printed publication, leaflet)
Stage II: Design and development of indicators

Development of Methodological Sheet for all indicators

- **Key tool** in constructing the indicators set
- Internal use
- Contains all the technical specifications and its underlying variables
- Clarifies technical content and specificities
- Allows for a common comprehension and building process
- Informs about the design/construction **progress** of each indicator
- **Facilitates** the technical analysis of each indicator
- Content will be used in the dissemination template
- **Enables comparability** of the indicator over time and across space
Stage II: Design and development of indicators

Criteria for selection of indicators (to be included in refined set)

- Indicator **relevance and pertinence** to target or policy objective
- Statistical **feasibility**, availability of data series
- **Data quality** of underlying variables
- Robustness
- Simplicity
- **Clarity** and **user friendliness**
- **Directionality** safety
- **Integrity** and **coherence** between fields in the methodological sheet
- **Optimal** representation and **graphic design** for dissemination purposes

No single indicator is capable of reporting the full complexity of environmental or multidomain phenomena. However, each indicator selected must provide sufficient statistical value to justify its place in the indicator set/system.
Stage III: Institutionalization and updating of indicators

Stage 3: Institutionalization and updating

- User interviews
- User seminars
- Local re-launches

Core Methodological Process (steps):

1. Institutionalization of Indicator Unit and dedicated team
2. Inter institutional committee or platform institutionalization
3. Indicator set use and strengthening advocacy
4. Updating previous set and new indicators development

Tools: Intermediate Products

Final Products:

- Indicator Unit and dedicated team established
- Formalized inter-institutional committee or platform institutionalization
- Updated and expanded set of indicators for publication

Environment Indicator System
Products resulting from the indicator-building process
3. Products

1. Developers of first set of indicators ➔ Indicators Unit
   Operations, team and resource allocation in annual program of work and regular budget

2. First set of Indicators
   Set of MS and dissemination template and platform Published or ready to be published

3. National environment/climate change/disasters indicator system
   Institutions, dedicated teams, resources, network and equipment

4. Inter-institutional committee or formal mechanism
   To organize and facilitate data sharing, regular updating and further development of new indicators
Thank you for your attention!