



National online workshop:

Generating climate change and disasters indicators for policy decision-making in Antigua and Barbuda

03, 06 and 07 Dec 2021

Introduction to ECLAC's methodology to produce environment, climate change and disasters indicators

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UNITED NATIONS

ECLAC

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Principles for constructing indicator sets

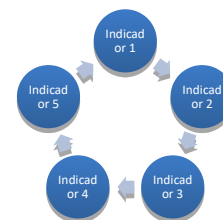
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Methodological road map for constructing indicators

Stage I: Preparation

Stage II: Design and construction of indicators

Stage III: Institutionalization



3

Products resulting from the indicator-building process

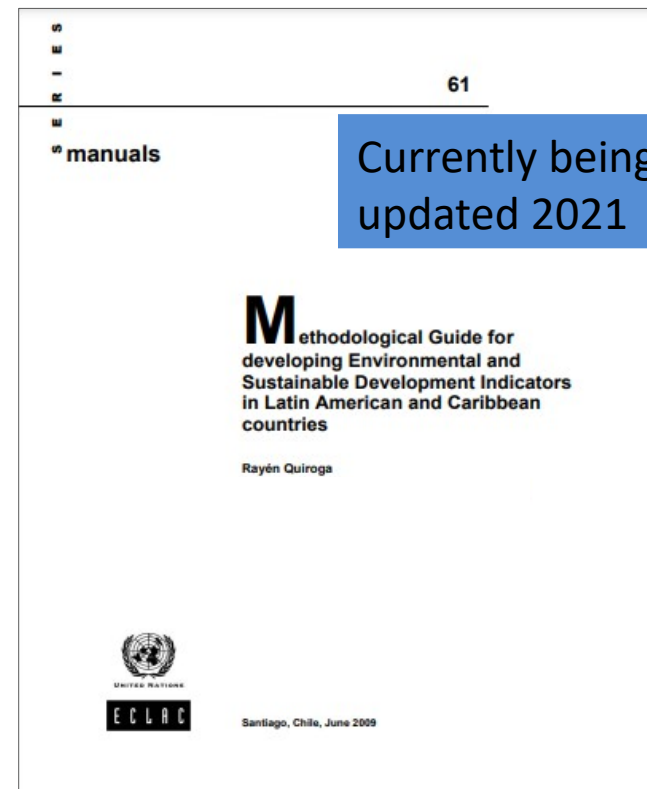
This methodology can be found in ECLAC Manual 61:



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**



Download:

<https://www.cepal.org/en/publications/37890-methodological-guide-developing-environmental-and-sustainable-development>

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Principles for constructing indicator sets



1. Principles for building indicators

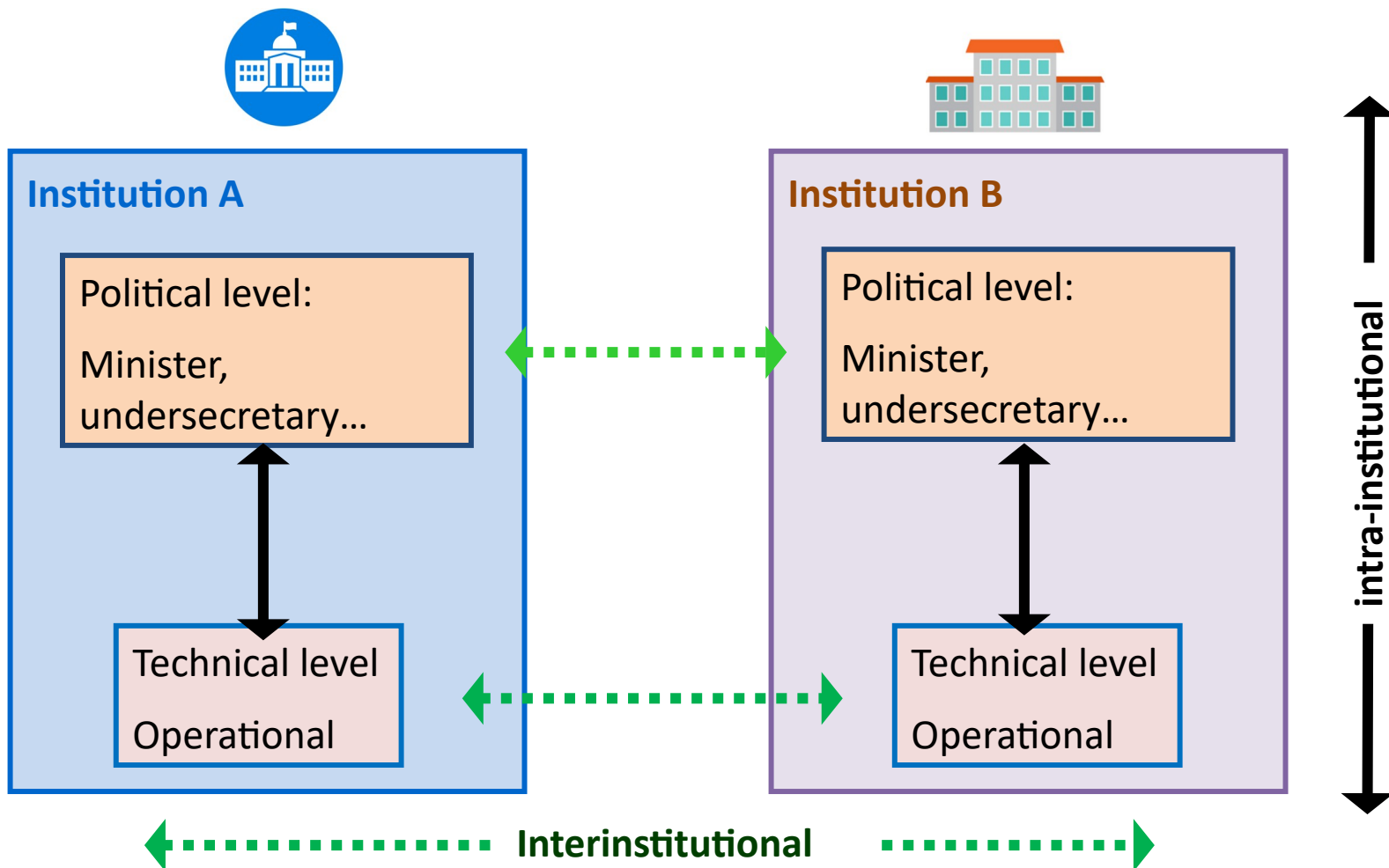
1. **Teamwork** and effective organization
2. **Inter-institutional** coordination and cooperation
3. **Demand-driven** indicator sets
4. Selection of **information and organization** of processes
5. **Manageable number** of indicators ... progression
6. Strict compliance with **procedures and statistical quality**
7. User-friendly and attractive indicators **dissemination**
8. **Flexibility and perseverance**

- ▶ 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



Principle 3: demand-driven indicator sets



1. Identification of the most important and critical decisions and interventions

(Reports or profiles of environment, development sustainability, the situation of climate change and/or occurrence and impact of disasters in the territory)

2. Identification and selection of the most useful potential indicators to guide these decisions and interventions

(Draft list of potential indicators)

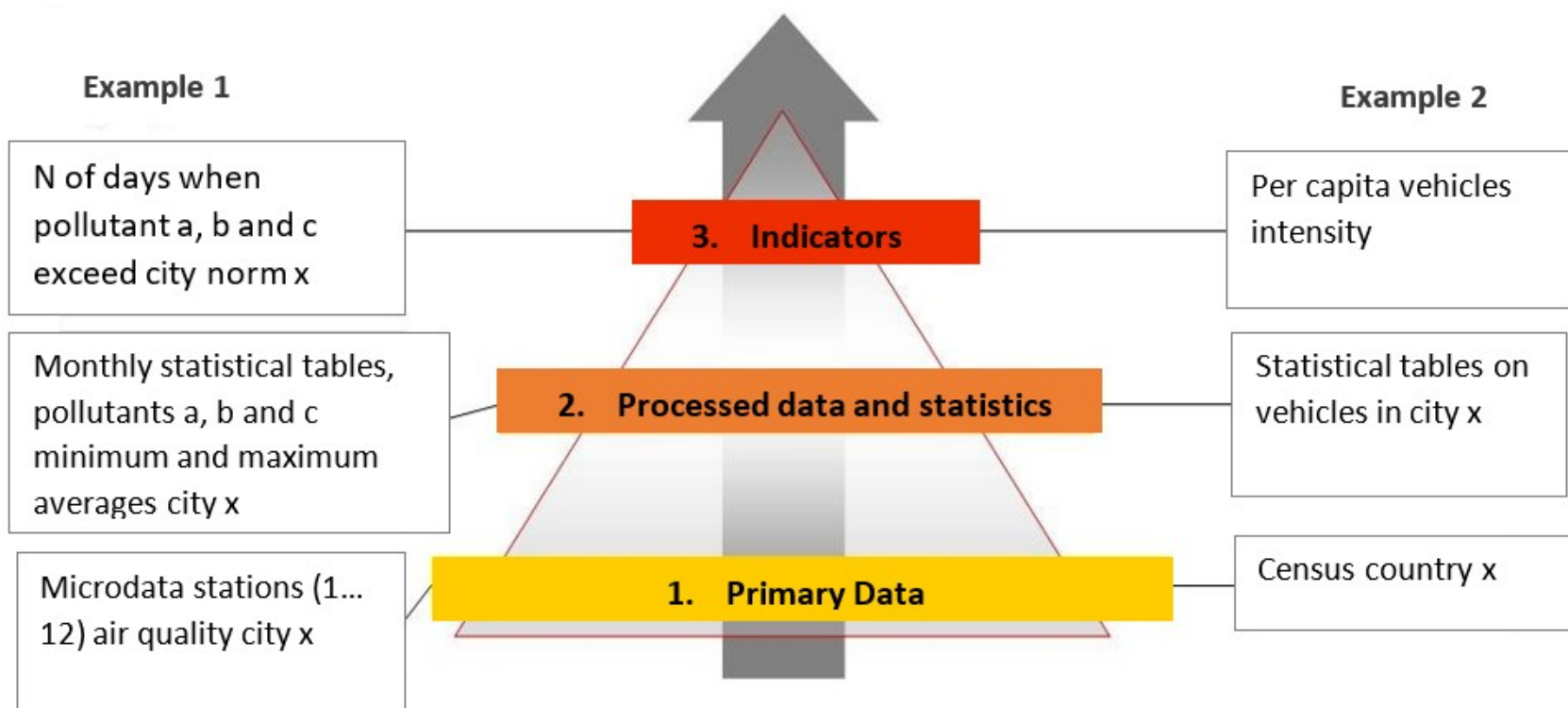
3. Verification of statistical feasibility of the potential indicators (verification of existence, quality and statistical series and primary data systematization)

4. Assessment of primary statistical sources for datamining:

- Surveys and Censuses
- Quality ground monitoring stations and programs (air, water, soil, etc.)
- Remote sensing
- Administrative records
- Estimates
- Scientific research

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

Principle 4: Selection of information and coordination of processes



Principle 5: Manageable number of indicators (modular progressive approach)

- ▶ Each indicator (design, construction, publication, update) requires a strong investment of time, energy and 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

Less is more!!!



- ▶ 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.

- ▶ indicators should be displayed in an attractive and easily understood by the users.
- ▶ allot sufficient time and trained staff to the design phase of the components and communication platform of the indicators
- ▶ carefully select the language used to present the indicator, and the overall design on which each indicator is presented
- ▶ proper selection of the publication media,
- ▶ to 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
- ▶ Develop new potential indicators at any time during their work.
- ▶ Avoid inflexibilities of any sort

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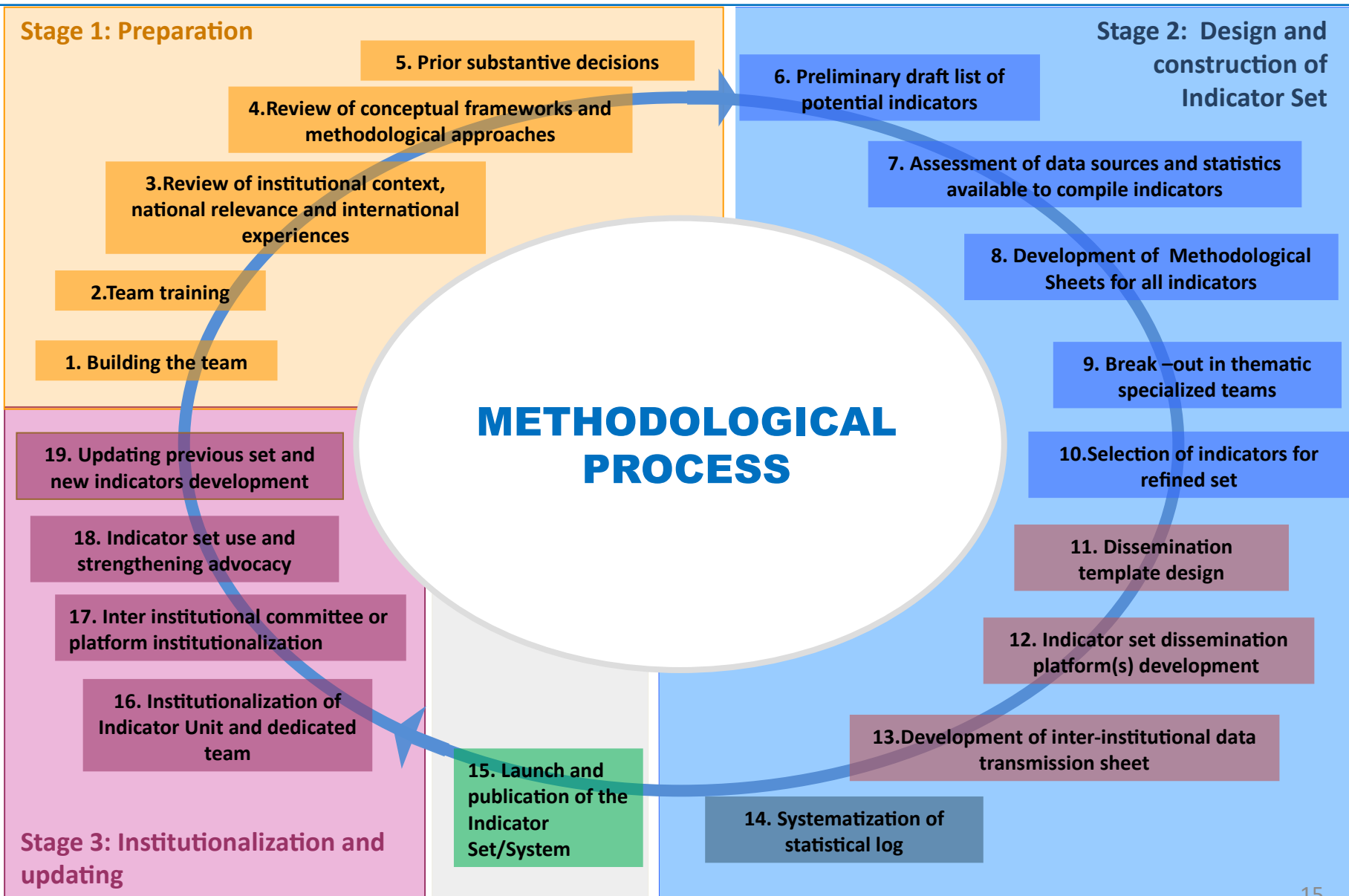
Building indicators: Methodological road map

Stage I: Preparation

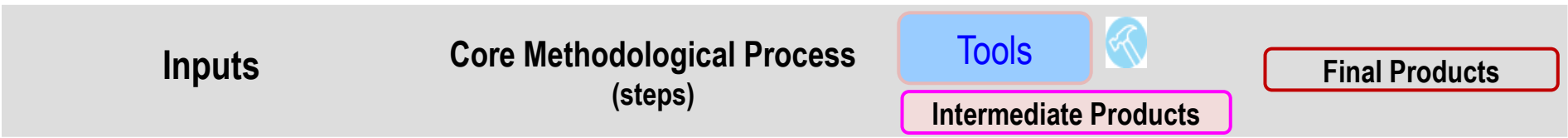
Stage II: Design and construction of
indicator set

Stage III: Institutionalization and
updating

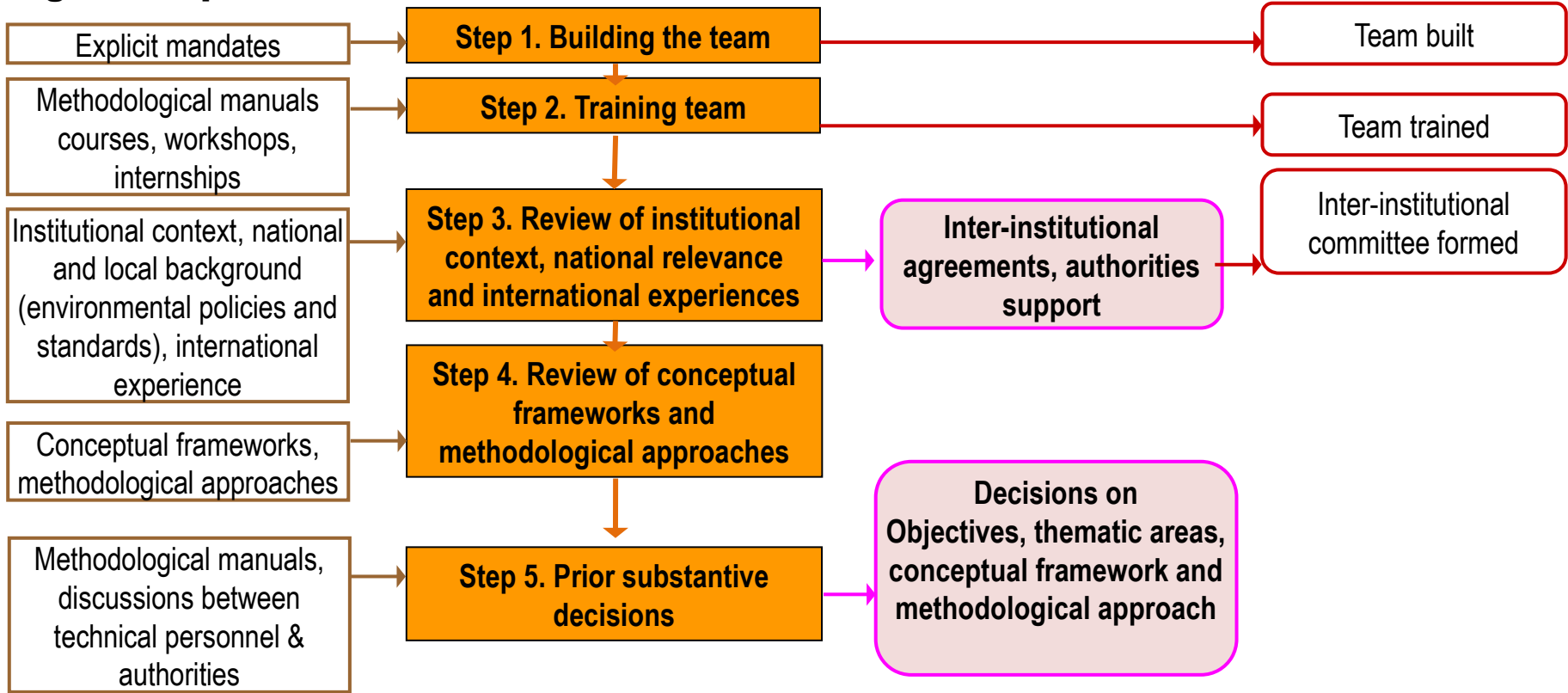
2. Methodological road map



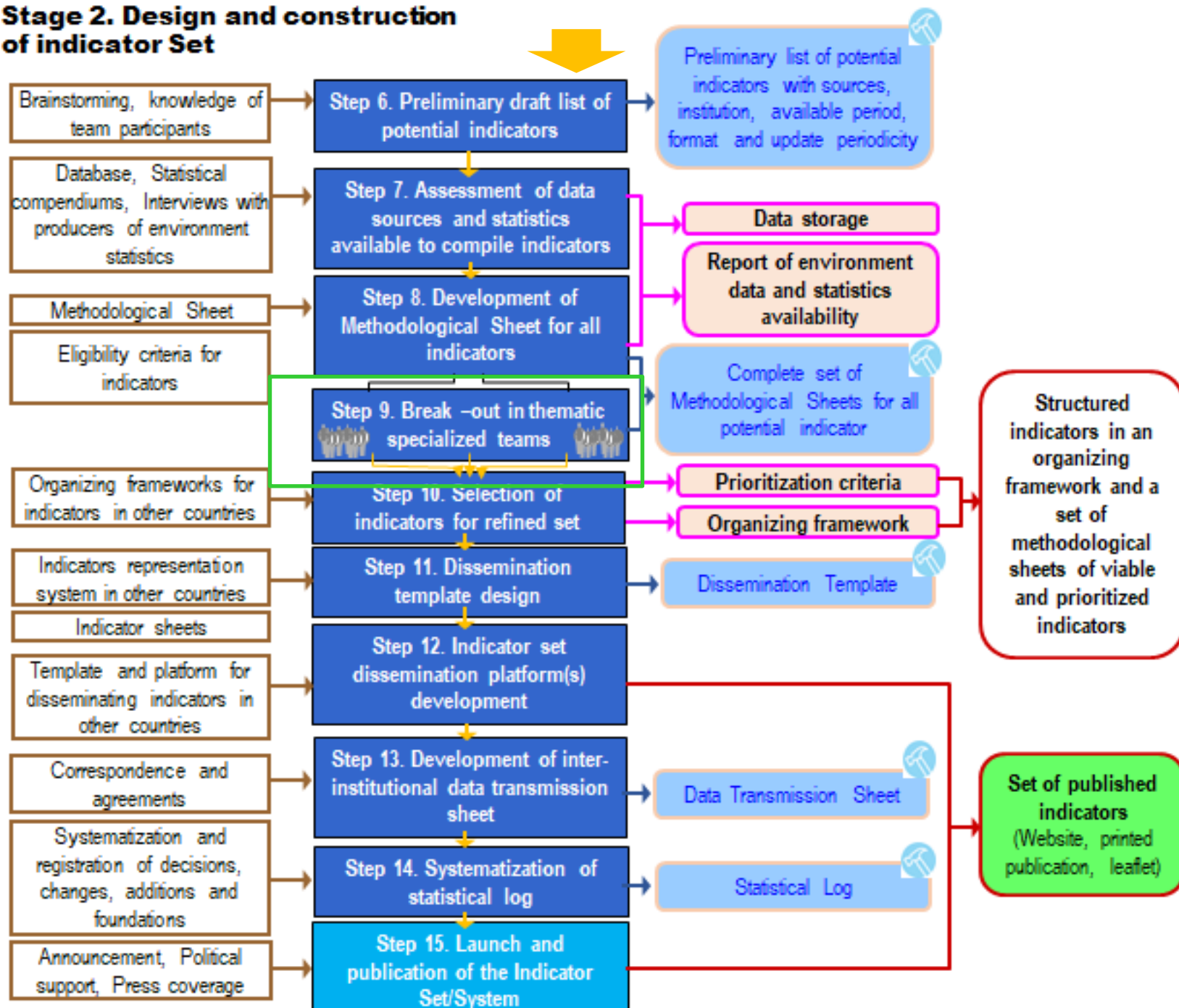
Stage I: Preparation



Stage 1. Preparation



Stage 2. Design and construction of indicator Set



Step 8: Development of Methodological Sheet for all indicators



- ▶ Key tool in constructing the indicators set
- ▶ Internal use
- ▶ Contains all the technical specifications of the indicator and its underlying variables
- ▶ Clarifies and share 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
- ▶ Selected content will be used in the indicator dissemination template
- ▶ Enables comparability of the indicator over time and across space

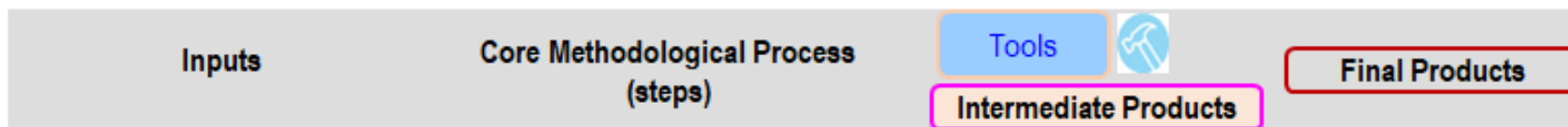
Step 10: Criteria for selection of indicators (to be included in refined set)



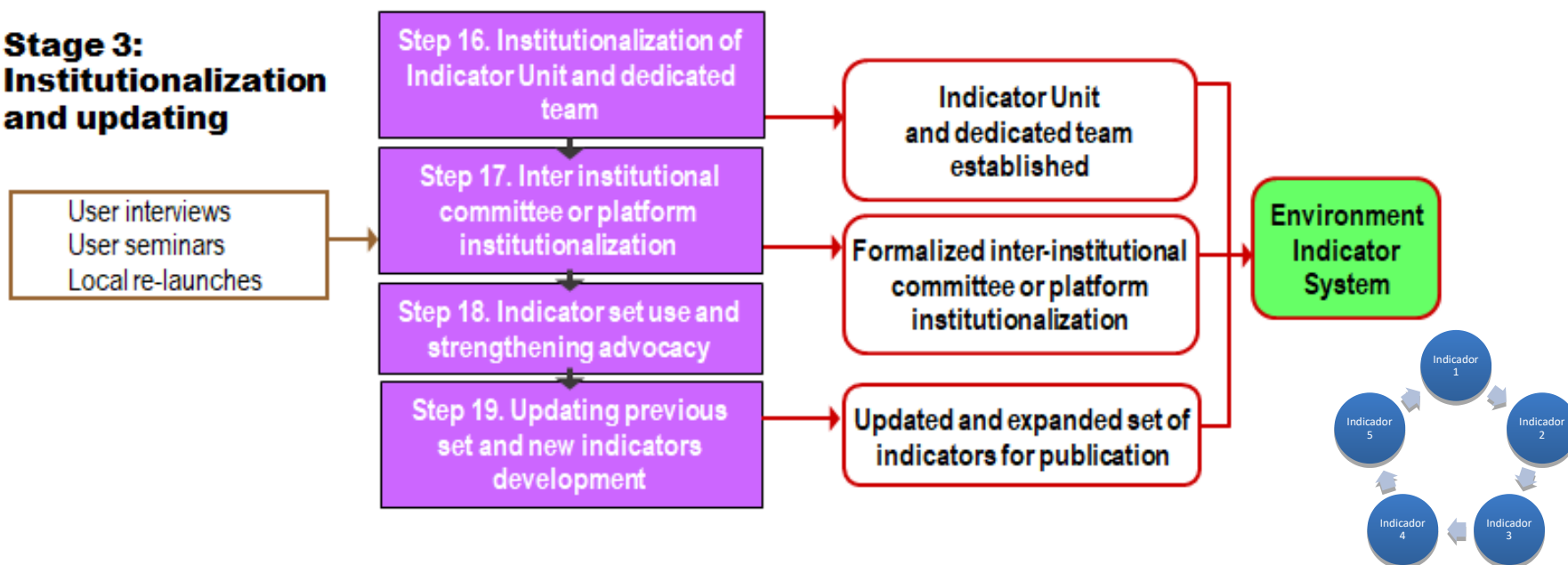
- ▶ Indicator relevance and pertinence to target or policy objective
- ▶ Statistical feasibility of indicator (availability of data series)
- ▶ Data quality of underlying variables
- ▶ Indicator robustness
- ▶ Indicator simplicity
- ▶ Indicator clarity and user friendliness
- ▶ Indicator security of directionality
- ▶ Completeness and consistency among fields in methodological sheet
- ▶ Optimal representation and graphic design for dissemination purposes

No indicator by itself is capable of informing about the whole complexity of environmental or multi-domain phenomena. Nevertheless, each selected indicator must provide enough statistical value to justify its place in the indicator set/system.

Stage III: Institutionalization and updating of indicators



Stage 3: Institutionalization and updating

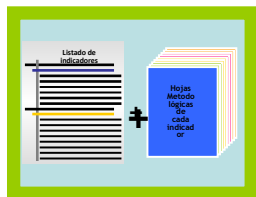


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Products resulting from the indicator-building process

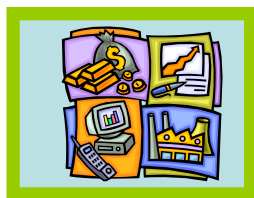
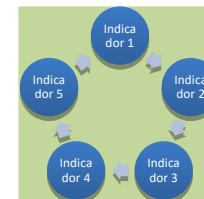


1. Developers of first set of indicators ➡ Indicators Unit
Operations, team and resource allocation in annual program of work and regular budget



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

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Thank you for your attention!

<https://www.cepal.org/en/topics/environmental-statistics>