Progress of the Statistics Division of ECLAC in terms of indicators complementary to GDP.

Seminar Beyond GDP: statistical challenges for the measurement of development

August 24, 2022

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Progress of the Statistics Division of ECLACin terms of indicators complementary to GDP

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✓ Ecosystem accounts
✓ Synthetic indicators complementary to GDP
✓ Beyond the averages: territorial disaggregation and geoespatial information
  ✓ Geospatial information
  ✓ Subnational GDP
  ✓ Disaggregations through SAE
✓ Next steps
National accounts and economic statistics
Update of the SNA towards 2025

Participation of the National Accounts Expert Group (AEG).
• Discussion of the methodological notes made by the groups on the different topics under development.

Regional webinars.

National Accounts Regional Seminar (Oct 2022):
• Economic well-being and sustainability: the household account and the final expenditure of household consumption.
  i. Classification of individual consumption by purpose of households
  ii. Distributional exercise.
  iii. The household account.
  iv. Social Accounting Matrix, under a distributive approach.
  v. Care Economy: Satellite Account; Complementary indicators.
  vi. Measurement of the informal economy.

Satellite accounts:
• Support in the implementation of satellite accounts in the countries of Latin America and the Caribbean, through capacity-building activities (workshops, seminars, technical assistance).
Objective: To provide a harmonized regional matrix in dollars, using the ISIC classifier revision 4, for the countries of Latin America and the Caribbean.
National accounts and economic statistics

Repositorio SUT - IOT

Possible lines of exploitation of regional information.

- Changes in foreign trade structures.
- Increase in fuel prices.
- External shock analysis.
- Pandemics.
- Changes in the shares of the services.
- Possible losses of physical capital due to natural disasters.
National accounts and economic statistics

BADECON

Objective:
Create a repository with the economic surveys available at the highest level of detail (micro data / class of economic activity) for Latin American countries.

Source: ECLAC own elaboration based on BADECON
BADECON

Possible lines of exploitation of the information.
Preparation of intermediate regional indicators by economic activity, regional analysis by industry, comparisons of economic structures and occupation, monographs by industry, etc.

- Estimation of gas emissions through energy consumption.
- Wage gaps through remuneration by sex and economic activity.
- Management positions by gender. According to occupational category, sex and economic activities.
- Indicator of inclusive and sustainable industrial competitiveness.
- Estimation of green investment, through investment in capital in industries categorized as sustainable in environmental terms.
Ecosystem accounts
Ecosystem accounts

Activities in environment statistics

What have we done until now?

• Monitor the progress of environmental accounts in the countries of Latin America and the Caribbean.
• Support the countries in improving their processes of production, collection, integration and publication of environmental statistics and indicators.
• Articulate national strategies for the integration of geospatial and statistical information.
Synthetic indicators complementary to GDP
Synthetic indicators complementary to GDP

Index of Vulnerability to Climate and Economic Change

• Small Island States (SIDS) are highly exposed to exogenous economic and environmental shocks from climate change, making them vulnerable and disaster-prone.

• SIDS have raised the limitations of GDP to account for the vulnerabilities they face and the need to develop a globally accepted indicator that considers them.

• ECLAC has proposed a vulnerability index to capture the adverse effects of climate change on economies and people.
Synthetic indicators complementary to GDP

Index of Economic Vulnerability to Climate Change

The selected indicators:

- They focus on the progressive economic devastation from climate change.
- They represent current and future exposure and sensitivity to natural disasters.
- They are based on information provided by the main environmental indexes.

**Indicators**

<table>
<thead>
<tr>
<th>4 EVI</th>
<th>4 ND-GAIN</th>
<th>GW CRI</th>
<th>MVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop. in low elevated coastal</td>
<td>Pop. living in drylands</td>
<td>Food Import Dependency</td>
<td>Deaths from climate change</td>
</tr>
<tr>
<td>Losses over GDP</td>
<td>Tourism receipts over total exports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFORM</td>
<td>WB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural instability</td>
<td>Victims of disasters (%)</td>
<td>Change warm period</td>
<td>Sea Level Rise Impact</td>
</tr>
<tr>
<td>Natural Hazard Exposure</td>
<td>Transport resilient by 2030</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 12 Variables of the main environmental indices
- All normalized from 0 (minimum observed value) to 100 (maximum)
- All with the same weight
Synthetic indicators complementary to GDP

Results

- 26 of 38 SIDS countries globally face High or Very High vulnerabilities.
- Also in LAC, most SIDS countries face high or very high vulnerabilities.

![Classification of countries based on vulnerability](chart.png)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>LAC SIDS</th>
<th>Non-LAC SIDS</th>
<th>LAC Non-SIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (EnEVI&lt;20)</td>
<td>15</td>
<td>3</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Medium (20-30)</td>
<td>68</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>High (30-40)</td>
<td>51</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Very High (EnEVI&gt;40)</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

World (142 countries): Classification according to levels of vulnerability
Synthetic indicators complementary to GDP

Multiple Deprivation Index

• The multidimensional measurement of poverty is not new
  • In Latin America in the 1980s, the UBN method was used to account for critical deficiencies.

• Current context
  • Indicator for monitoring the SDGs and Global MPI measurement (UNDP/OPHI).
  • In Latin America, 10 of 18 countries have an official MPI.

• Need for a regional comparable index
  • The global MPI standards are not adequate for the regional reality.
  • The national MPIs are not comparable in the indicators, dimensions and thresholds used.
  • Previous attempts to design a regional MPI (eg. ECLAC 2010, 2013, 2014) did not have sufficient consensus.

• ECLAC is developing a regionally comparable Multiple Deprivation Index, complementary to the income poverty measure.
Synthetic indicators complementary to GDP

Multiple Deprivation Index

- Index defined at the level of the individual and not of the household.
- Relevant indicators and thresholds for each age group.
- Presentation of the regional MPI scheduled for early 2023.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing and services</td>
<td>Housing materials</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Overcrowding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy</td>
<td></td>
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<tr>
<td></td>
<td>Internet</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>Water</td>
<td>25%</td>
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<tr>
<td></td>
<td>Sanitation</td>
<td></td>
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<tr>
<td></td>
<td>Health insurance</td>
<td></td>
</tr>
<tr>
<td>Educations</td>
<td>Attendance and lag (children and youth)</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Educational attainment (adults)</td>
<td></td>
</tr>
<tr>
<td>Employment and pensions</td>
<td>Non-participation in the labor market (youth and adults)</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Poor quality employment (adults)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insufficient pensions (older adults)</td>
<td></td>
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</tbody>
</table>
Beyond the averages: Territorial disaggregation and Geospatial information
Beyond the averages: Territorial disaggregation and Geospatial information

Geospatial information

The differences by geographical location is one of the dimensions to consider to measure the inequalities around the selected indicators.
Beyond the averages: Territorial disaggregation and Geospatial information

Geospatial information

- Geographic Information Systems are powerful tools to identify and take advantage of the asymmetries observed in the territory, allowing the disaggregation of data by geographic regions.

- ECLAC's geospatial platforms that integrate its statistical and geographic data banks converge on innovative solutions to facilitate territorial analysis.
Beyond the averages: Territorial disaggregation and Geospatial information

Geospatial information

CEPALSTAT allows the access and visualization of disaggregated data through its geoportal, integrating geographic layers to enhance the traditional analysis approach.
Beyond the averages: Territorial disaggregation and Geospatial information

Subnational GDP

Subnational accounts can provide information on the subnational economic structure of a country and the transactions that take place in those regions.

Agriculture, forestry and fishing
Gross Added Value per capita and participation in Colombia, 2019
(billions of Colombian pesos and percentage points)

SOURCE: DANE y CELADE.
Subnational GDP

Possible lines of exploitation of the sub-regional information.

- Evaluation of average productivities by supply sector and region.
- Analysis of productive structures by region.
- Calculations of value added by region.
- Income concentration analysis obtained by crossing with the variables income by region.
- Regional impacts of public policies.
- Regional Investment analysis.
Beyond the averages: Territorial disaggregation and Geospatial information

Disaggregations using small area estimation methodologies (SAE).

- Estimation methodologies in small areas allow information sources to be combined to achieve greater disaggregation of information.
- ECLAC produces disaggregated maps of poverty and other selected indicators. Ex: sex, age, ethnic group, disability, education.
- Training through virtual and face-to-face courses.
- Direct technical assistance to countries for the application of SAE to indicators of interest.
What can we do as a region to go beyond GDP?
What can we do as a region to go beyond GDP?

- Take advantage of national experiences for South-South cooperation, for example: the lessons learned from Mexico and Brazil as pilot countries in the SEEA Ecosystem Accounting, together with China, India and South Africa.

- Identify information that allows for innovative measurements that are complementary to GDP, such as: care economy, circular economy, unpaid work, gender and social inequalities, and the blue economy.

- Improve the capabilities of the region to take advantage of geospatial information, earth observations and other non-traditional information sources.

- Advance in the adoption of the recommendations of the System of National Accounts and the SEEA.
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