Workshop on Supporting Evidence-Based VNRs and SDG Reporting

Data and Statistics Innovations

Mainstreaming LNOB evidence to VNRs

7 December 2023
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What is ESCAP LNOB analysis?

ESCAP LNOB Analysis

• An empirical analysis of inequality and gaps in access to key services and opportunities

• An efficient disaggregation tool that captures intersectionalities among individual/household circumstances

• Driven by data that are nationally representative and ideally conducive to subnational disaggregation

• Based on Classification and Regression Tree Analysis (CART) and Dissimilarity Index

Basic Assumptions

• Access to key services and opportunities should be universal.

• Individual or household circumstances should NOT impact access.
Why is LNOB analysis important?

Find which SDGs have the most “Left Behind”
SDGs are not equal in terms of the size and composition of groups left behind in their achievement.

Uncover who are the “Left Behind” in specific SDGs
Unique combinations of individual and household circumstances identify who are left behind and where.

Monitor gaps and inequality in SDG achievements?
The groups that are furthest left behind change over time across SDGs both for the good and the bad.
Who can use the LNOB analysis?

**Governments**
Design and implement truly inclusive development policies that leave no one behind.

**Civil Society**
Advocate and influence policy design and implementation with evidence.

**Academia**
Conduct more research inspired by latest LNOB results.

**Development Partners**
Support policymakers with inclusive projects that contribute to sustainable development.
• **Highlights inequalities** in SDG indicators at **national** and **subnational** levels for **30 countries** in Asia and the Pacific in **2010-2022** period based on **DHS** and **MICS** data.

• **Identifies** groups that are **furthest behind** in **16 SDGs** on **basic services**, **child health**, **women’s health**, **education**, **VAW** and **financial inclusion** based on demographic, socio-economic and cultural circumstances.

• **Helps** policymakers understand **whom to prioritize for interventions** to reduce inequality of opportunity.

• **Monitors** gaps and inequality in SDG achievements and supports **Voluntary National Reviews**.

https://lnob.unescap.org/
## Current Data Sources

DHS and MICS Surveys

<table>
<thead>
<tr>
<th>Sources used</th>
<th>What they are</th>
<th>Why were they selected</th>
<th>Availability</th>
</tr>
</thead>
</table>
| Multiple Indicator Cluster Survey (MICS) | Nationally representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition. | **Comparability** across countries**  
**Accessibility** of the data**  
The **rich set of questions** on health, demographic and basic socioeconomic data that refer both to the household and to individuals | 30 Asian and Pacific Countries |
Indicators
Full list of Indicators

**Basic Resources**
- Basic drinking water
- Basic sanitation
- Clean fuel
- Electricity
- Internet usage
- Mobile phone (household)
- Mobile phone (individual)

**Child and Family Health**
- Ability to protect from COVID-19
- Family planning (demand met with modern methods)
- Skilled birth attendance
- Overweight
- Stunting
- Wasting
- **Birth Registration (Soon)**

**Education**
- Early childhood education
- Secondary education (completed, 20-35 yrs)
- Secondary education (completed, 35+)
- Tertiary education (attended, 25–35 yrs)
- Tertiary education (attended, 35+)
- **ICT Skills (Coming Soon)**
- **Literacy (Coming Soon)**

**Finance**
- Bank account (household)
- Bank account (individual)
- Financial Inclusion

**Violence against women**
- Any type of violence against women
- Psychological violence against women
- Violence against women justified
- Physical violence against women
- Sexual or physical violence against women
- Sexual violence against women
The LNOB trees were developed with the aim of shedding light on how various circumstances can intersect to create inequality in access to basic opportunities.
The exemplary case of Nepal
LNOB Tree for SDG 17.8.1

Nepal (DHS 2016)
LNOB Tree for SDG 17.8.1

Nepal (DHS 2022)
LNOB across SDGs: An Overview

Nepal (DHS 2022)
SDG Progress over time

Nepal (DHS 2011, 2016 and 2022)
Access to basic sanitation is over 50 per cent for 7 out of 8 provinces in Nepal. However, in Madhesh province, only 35 per cent of households belonging to the furthest behind groups have access to basic sanitation. The furthest behind group, poorer households in rural areas, constitutes 9 per cent of the population in the province.
The exemplary case of Lao PDR
LNOB Tree for SDG 17.8.1

Lao PDR (MICS 2011-2012)

Data legend:
- Furthest ahead
- Other terminal nodes
- Furthest behind
LNOB Tree for SDG 17.8.1

Lao PDR (MICS 2017)

Internet usage 27%

Secondary or tertiary edu 46%
  Tertiary edu 80%

Secondary edu 38%

Lower edu 6%

Top 60 (wealth) 12%
  Bottom 40 (wealth) 2%

Top 60 (wealth) 45%
  Bottom 40 (wealth) 16%

Age group 15-24 62%
  Age group 25+ 33%

Age group 15-34 4%
  Age group 35+ 0%

Data legend
- Furthest ahead
- Other terminal nodes
- Furthest behind
Gaps are widening over time in some SDGS

Lao PDR (MICS 2011-2012 and 2017)
The exemplary case of Samoa
LNOB across SDGs: An Overview

Samoa (MICS 2019-2020)
Sea Level Rise – Pressure on Families

Samoa (MICS 2019-2020)

Note: ESCAP elaborations based standard LNOB analysis with responses from 3,187 women.
Change in Temperature – Pressure on Families

Samoa (MICS 2019-2020)

Note: ESCAP elaborations based standard LNOB analysis with responses from 3,187 women.
The exemplary case of Palau
LNOB Tree for SDG 8.6.1

**Palau (PHC 2020)**

Notes: Standard analysis based on 1,940 individuals aged 15-24.
LNOB across SDGs: An Overview

Palau (PHC 2020)

Share of households/individuals with access to opportunities (%)

- Basic drinking water
- Clean Fuel
- Basic Sanitation
- Mobile Phone
- Internet
- Literacy
- Secondary Education (20-35)
- Tertiary Education (25-35)
- NEET Youth

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Average  | Furthest Ahead  | Furthest Behind

1. **NO POVERTY**
2. **ZERO HUNGER**
3. **GOOD HEALTH AND WELL-BEING**
4. **QUALITY EDUCATION**
5. **GENDER EQUALITY**
6. **CLEAN WATER AND SANITATION**
7. **AFFORDABLE AND CLEAN ENERGY**
8. **DECENT WORK AND ECONOMIC GROWTH**
17. **PARTNERSHIPS FOR THE GOALS**
The exemplary case of Vanuatu
LNOB Tree for Food Insecurity

**Vanuatu (HIES 2019)**

- Sufficient food access: 84%
  - Urban residence: 89%
  - Rural residence: 83%
- Top 60 (wealth): 84%
- Bottom 40 (wealth): 81%

Notes: Standard analysis based on 4,549 households.
LNOB Tree for Exposure to Disaster

Vanuatu (HIES 2019)

Notes: Standard analysis based on 4,549 households.
LNOB Tree for SDG 16.1.4

Vanuatu (HIES 2019)

Notes: Standard analysis based on 9,013 individuals.
The exemplary case of Armenia
LNOB Tree for SDG 17.8.1

Armenia (HIES 2021)

Data legend:
- Blue: Furthest ahead
- Grey: Other terminal nodes
- Orange: Furthest behind
Progress over time

Armenia (HIES 2015 and 2021)
The exemplary case of Georgia
LNOB Tree for SDG 17.8.1

Georgia (HIES 2017)

Data legend:
- **Furthest ahead**
- **Other terminal nodes**
- **Furthest behind**
LNOB Tree for SDG 17.8.1

Georgia (HIES 2022)

- Internet usage: 76%
  - Age group 15-24 or 25-59: 91%
  - Age group 60+: 44%
- Urban residence: 96%
- Rural residence: 83%
- Top 60 (wealth): 98%
  - Bottom 40 (wealth): 94%
- Top 60 (wealth): 89%
  - Bottom 40 (wealth): 80%
- Top 60 (wealth): 34%
  - Bottom 40 (wealth): 18%

Data legend:
- Furthest ahead
- Other terminal nodes
- Furthest behind
Progress over time

**Georgia** (HIES 2017, 2019 and 2022)

<table>
<thead>
<tr>
<th>Year</th>
<th>Mobile Phone Ownership (household)</th>
<th>Clean Fuel</th>
<th>Internet Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>91</td>
<td>80</td>
<td>7</td>
</tr>
<tr>
<td>2019</td>
<td>94</td>
<td>88</td>
<td>11</td>
</tr>
<tr>
<td>2022</td>
<td>96</td>
<td>90</td>
<td>18</td>
</tr>
</tbody>
</table>

Average rate vs. Furthest behind.
The exemplary case of Solomon Islands
LNOB Tree for SDG 1.4.1

**Solomon Islands** (High Frequency Phone Survey on COVID-19 2022, Round 5)*

Notes: Standard analysis based on 2,507 households.

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**Data legend**

- **Blue**: Furthest ahead
- **Gray**: Other terminal nodes
- **Orange**: Furthest behind
Mainstreaming Evidence in Practice
Follow-up support upon request

Introductory & Technical LNOB Trainings at national and subregional levels

Customized Knowledge Products

01 to 02 March 2023 | By invitation only
Novetel Nadi, Nadi, Fiji

Key Highlights

Access to basic sanitation among the furthest behind groups has increased from 12 per cent in 2011 to 54 per cent in 2022. The gaps between the average access rate and the furthest behind groups have reduced, from 26 to 15 percentage points. In 2022, the furthest behind groups in access to basic sanitation, poorer households in urban areas in which members have lower education, comprises 14 per cent of the Nepali population. Efforts should be targeted towards those in most vulnerable provinces, such as Madhesh province.

Access to basic drinking water among the furthest behind groups has increased from 72 per cent in 2011 to 63 per cent in 2022. The gaps between the average access rate and the furthest behind groups have reduced, from 14 to 3 percentage points. In 2022, the furthest behind groups in access to basic drinking water, poorer households in rural areas in which members have lower education, comprises 13 per cent of the Nepali population. Efforts should be targeted towards those in most vulnerable provinces, such as Lumbini province.

Access to clean fuels among the furthest behind groups has increased from 0 per cent in 2011 to 5 per cent in 2022, and from 36 per cent in 2011 per cent to 88 per cent in 2022 in respect to access to electricity. While the gaps between the average access rate and the furthest behind groups in respect to clean fuels have increased, from 24 to 41 percentage points, in respect to electricity, the gaps have reduced, from 26 to 8 percentage points. In 2022, the furthest behind groups in access to clean fuels, poorer households, comprises 40 per cent of the Nepali population. Similarly, the furthest behind groups in access to electricity, poorer households in rural areas in which members have lower education, comprises 13 per cent of the Nepali population. Efforts should be targeted towards those in most vulnerable provinces, such as Karnali and Sudurpashchim provinces.
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