United Nations High Level Panel on the Multi-Dimensional Vulnerability Index

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Why is an MVI needed?

• Wide agreement that poorer countries need and deserve assistance.
  • Country poverty often measured by GNI PC, which is a weak measure of material welfare or well-being.

• Downward volatility of well-being (risk) also problem – recovery costs can be high.
  • External shocks are a big risk.
  • Stressor such as climate change that lower or eliminate prospects for future income gain also.

• Countries with structural risk of lower well-being also deserve special assistance, especially if countries structurally lack resilience

• No international, widely accepted, quantitative benchmark to measure structural vulnerability or lack of resilience across multiple dimensions of sustainable development at the national level.

UN resolution: Develop and promulgate an MVI

(UNSG REPORT A/76/211)
Multiple use cases for an MVI – depends on stakeholder

• Identify main sources of structural vulnerability and lack of resilience in countries.
  • Example – long coastline, which increases risk of lower future well-being owing to climate change

• Assist in allocation of development finance by complementing other measures of country need (especially the GNI which does not have a risk adjustment).

• Assist countries in developing strategies to improve well-being by pinpointing their sources of vulnerability and benchmarking these across countries.

• Tool for research/analysis of vulnerability and development.
The MVI framework – Principles from UNSG report

Multidimensionality
- Indicators should be drawn from all three dimensions of sustainable development.

Universality
- The vulnerabilities of all developing countries must be included in the index.
- The index needs to employ available, recognized, comparable and reliable data.

Exogeneity
- Only factors that are structural should be considered.
  - Structural: factors that are inherent or slow-moving, independent from current or recent policy choices.

Evidence-based
- There should be evidence relating index concepts to vulnerability.

Simplicity
- The framework of the MVI should be based on a simple structure.
The MVI framework

Vulnerability Resilience Country Profiles (VRCPs)
Key definitions

- **Structural vulnerability:**
  - *the risk of a country’s sustainable development being hindered by recurrent adverse exogenous shocks and stressors.*

- **Structural lack of resilience:**
  - *Resilience = the inherent characteristics or inherited capacity of countries to withstand, absorb, recover from or minimize the adverse effects of shocks or stressors*
Identification of concepts based on thorough literature search, theory of change

**Structural Vulnerability**
- Economic
  - Exposure to fluctuations in international trade and financial flows
  - Exposure to fluctuations in export earnings
  - Exposure to fluctuations in strategic import prices
  - Exposure to natural hazards
  - Exposure to extreme weather events
  - Exposure to ecosystem pressure
  - Exposure to global health shocks
  - Spillover effects of regional violence
  - Increased stress due to entrance of international forced displacement of people
- Environmental
- Social

**Structural Resilience**
- Economic
  - Capacity to integrate with international markets
  - Economies of scale
  - Domestic economic capacity
- Environmental
  - Adequacy of water supply
  - Resilience of agricultural system
  - Resilience to heat shocks
- Social
  - Low demographic pressure
  - Effective social service provision
  - Gender equity
Indicators choice – the criteria

1. Data availability
   - The selected indicators must have data publicly available on all developing countries.

2. Data quality
   - The MVI should be based on data of the highest quality.

3. Indicator selection transparency
   - the relationship between vulnerability, resilience and the selection of indicators has to be based on clear and detailed rationales.

4. Indicator acceptability
   - the selection of indicators has to lead to an acceptable MVI.

The four criteria ensure the credibility of the index and well as its robustness and stability across time.

Application of principles and criteria related to data need clear rules.
Indicators choice - Rules

**Rule #1:** The use of UN data must be prioritized.

**Rule #2:** The MVI will not be based on variables that present too many missing values.
   - Missing data will not be estimated at this stage.

**Rule #3:** The MVI will be computed for every country even those with a limited amount missing data.

**Rule #4:** The MVI scores and ranks will NOT be computed for countries with too many missing values.
Examples of indicators excluded:

- **Principle: evidence-based**
  - *Share of agriculture in GDP (Economic vulnerability)* – Lack of convincing and recent evidence linking the indicator to vulnerability to shocks
  - *Share of remittances in GDP (Economic vulnerability)* – Lack of evidence relating this indicator to vulnerability to shocks; weak evidence relating it to resilience
  - *Trade openness (Economic vulnerability)*

- **Indicator Choice – Criteria: Data quality**
  - Debt

- **Rule #1: UN data must be prioritized**
  - *Victims and damages from natural hazard (Environmental vulnerability)* – Sendai Framework Monitor data was replaced by the EM-DAT database as the alternative source which is also used by the UN.

- **Rules #2: too many missing values**
  - *Low Income inequality (Social resilience)* – Countries without reliable income or consumption surveys do not have reliable data.
Creating the Index - Aggregation

• Countries are vulnerable in different ways.

• How to aggregate the indicators in a composite index which properly reflects these differences?

• The MVI panel selected the **quadratic mean** as the appropriate method as it is better captures vulnerability by rewarding the largest differences in components.
MVI – SENSITIVITY ANALYSIS

Scatter plot of MVI and population (log)

Scatter plot of MVI and GNI PC
Consultative Process and Feedback

• Consultations with Member States
• Consultations with IFIs
• Consultations with research institutions
Results
See the following websites for more information


- [https://sdgs.un.org/topics/small-island-developing-states/mvi](https://sdgs.un.org/topics/small-island-developing-states/mvi)