

**UK COMMENTS: UN MVI INDEX****OVERALL**

We commend the HLP for their work on the index and the efforts to include resilience, which is critical to providers of finance. The motivation for the MVI is well-founded: that GNI per capita used alone is insufficient for determining international resource transfers, because it does not incorporate vulnerability to shocks or structural handicaps. As a result of this failing, current allocations to SIDS require special workarounds and this is unsatisfactory.

The UK has high hopes for the UN process, we believe that this is an important step forward in the search for a measure that can be used in combination with GNI per capita, and as such it is crucial to get the new MVI right. We do not believe that the current version of the index is ready to be used, we recommend a delay in order to make improvements. A consultation discussion on the new MVI held in the UK underlined the need for the new index to be credible and to reflect national level realities.

We recognise that the panel has had to make difficult choices in the design of the MVI, including subjective choices regarding what is endogenous or exogenous, structural or non-structural, several indicators can be argued equally in any of these categories. We would encourage the panel to assess these choices on the basis of whether they create an MVI that offers a credible picture of vulnerability and resilience for the intended purposes.

It is potentially helpful that the MVI would be complemented by Vulnerability-resilience Country Profiles (VRCPs) that could assist in identifying how to tackle vulnerabilities. We would encourage being mindful of creating additional process and capacity requirements for SIDS.

**Indicator Recommendations**

The resilience sub-index does not effectively reflect resilience because it misses critical elements, particularly finance availability and state capacity.

**Key recommended additional variables:**

1. **Finance available:** For providers of finance, it is critical to include an indicator of a country's overall position in accessing finance. Finance can be used to build resilience and respond to shocks, if a state has broad and significant access to a range of sources of finance it has a higher level of resilience. Where states lack access to finance and have constrained fiscal space (e.g. due to high debt levels caused by natural disasters) this represents a significant vulnerability.

Overall, access to finance when viewed as a resilience issue can be proxied/measured through both of a and b. C and d are auxiliary.

- a) Credit worthiness / affordability of finance: this indicates access to and affordability of wider finance. Creditworthiness is also an indicator of debt (a critical and central issue for SIDS) but is more exogenous. This could draw from the WB approach to Creditworthiness used in IDA criteria. This is our preferred suggestion of indicator and data is available even for states that have very limited levels of borrowing.
- b) Government revenue per capita: provides alternative finance to respond to shocks. This indicator also offers a limited insight into state capacity and is therefore complementary to point 2 below.
- c) Household savings in \$USD per capita (not percent of GDP): enables individuals to respond to crisis.
- d) Access to insurance

2. **State capacity:** The UK's comments on the Panel's interim report (Sept 2022) pointed to the importance of capturing a state's structural capacity within the MVI. Structural capacity does not relate to transient policy choices or political systems nor is it the same as concepts of good governance. Rather, it relates to the underlying ability of the public service to implement and deliver; this capacity changes relatively slowly over time (as does social provision – already recognised by the panel as a structural factor). For small state systems structural state capacity is often a critical vulnerability, small population sizes and the diseconomies of scale of government can exacerbate challenges such as ability to manage and deliver adaptation to climate change. Measuring changes in such underlying structural capacity is therefore crucial, and underlying state capacity is structural to the same degree as effective social provision.

As a result, we do not believe that the current resilience element meets the test set out in the Terms of Reference in relation to structural/non-structural factors.<sup>1</sup> While disasters can lead to loss of infrastructure, agricultural production and investor flight, the overall capacity of the state remains the foundations on which management, recovery and the mitigation of future events will begin. The gradual improvement of that capacity is a key guide to the growing resilience of a state. State capacity is also as endogenous as existing indicators, such as years of schooling, women in parliament, social service provision. Potential proxy/indicators are:

- a) Budget Execution (this is an existing UN SDG16 indicator and the information available states that data exists for 150 countries)
- b) Within the World Governance Indicators cluster for Government Effectiveness the World Bank use an bureaucratic quality ranking from the Political Risk Services International Country Risk Guide

It should also be noted that Government Revenue per capita also offers a limited view of state capacity. It reflects the capacity to collect revenue, a key function – along with sustainable finance for running a state and responding to shocks.

3. **People displaced by natural disasters:** this is key and costly to people and economies. This could be useful if there is sufficient data. This is a social vulnerability.
4. **Construction quality:** Another element for vulnerability and/or resilience if there is sufficient data would be quality of construction; eg % of construction able to withstand 100 year weather event. This could be part of economic or social vulnerability/resilience.

We recommend critical variables which are a similar level of exogeneity to existing elements of the prototype, which are determined at least in part by policies (social service provision, women in parliament, dependency ratio, connectivity, fixed capital formation, production concentration, years of schooling).

In reality there is a continuous spectrum between perfectly exogenous/structural and endogenous/non-structural indicators; these concepts are not binary.

#### Comments on current indicators:

- **Damages related to natural hazards** are a significant economic risk as well as environmental, especially for physically small states. We would suggest this be included in the economic dimension as this is a critical economic risk and a large part of countries' economic vulnerability.

---

<sup>1</sup> bullet point 3, section 2, [https://sdgs.un.org/sites/default/files/2022-07/MVI\\_Panel\\_TOR\\_%202021.pdf](https://sdgs.un.org/sites/default/files/2022-07/MVI_Panel_TOR_%202021.pdf)

- **Trade openness** is not necessarily a vulnerability (e.g. Singapore) since in many economies it has brought growth and diversification, the distinctive for small states is often heavy dependence on external food and fuel supplies, with narrow and vulnerable export revenues. It is therefore the nature of trade, rather than openness, that creates vulnerabilities. Equally, you can still have quite closed economies with huge dependencies. We would suggest cutting Trade Openness.
- **Proportion of seats held by women in parliament** is worth maximising but is not a marker of resilience. It can be considered more an outworking of political openness, education and demographic transition.

### **Weightings**

There is implicit equal weighting across non-equivalent risks, both between dimensions and indicator elements. Categorisation between elements within dimensions can be arbitrary, and the choice of categorisation implicitly confers weights. The equal weights mean that exposure to natural hazards is deemed the same importance for the index as epidemic vulnerability and trade openness. This does not reflect the real impacts on people's wellbeing; we know some indicators have bigger impacts than others. For example, tropical cyclones have huge socio-economic impacts on countries – in Dominica 2017 Hurricane Maria wiped out 226% of GDP, following three other recent large hurricanes.

The growing narrative around vulnerability of countries – including the call for MVIs and resilience indicators, the Glasgow Climate Pact, and going Beyond GDP - is focused on environmental issues; so there could be careful consideration of the MVI focusing on the environmental dimension most.

### **Functional Form**

The even weighting across non-equivalent risks is exacerbated by quadratic means which underweight multiple high scores. Rather than a “mushy middle”, quadratic weighting creates a “mushy extreme”. The result is an index where many countries are vulnerable, and this may contribute to instances where vulnerability ranking doesn't seem to reflect true differences in vulnerability.

The vulnerability and resilience should be *multiplied* rather than combined with a quadratic average. Currently, there is virtually no amount of resilience that can reduce a country's MVI score.

Note vulnerability vs resilience can be a false dichotomy; Vulnerability and resilience are not separate and distinct as several indicators could go be either vulnerability or resilience (eg economies of scale, distance from nearest trading partner), and vulnerability and resilience influence each other.

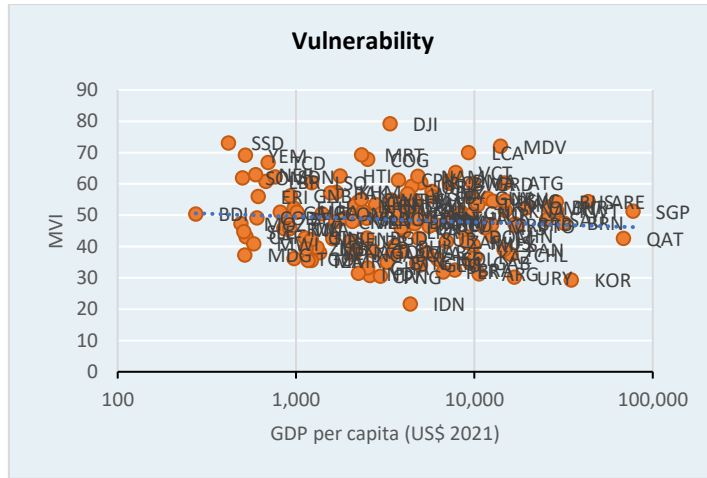
### **Conclusion:**

Overall, we believe that the panel has made good progress and are grateful for the work that has been done so far. We look forward to the finalisation of the MVI which we believe will mark a major step forward, however, we recommend that the panel take the time necessary to address current issues with the draft, even if this entails a longer timeframe for the process as a whole.

**Annex below.**

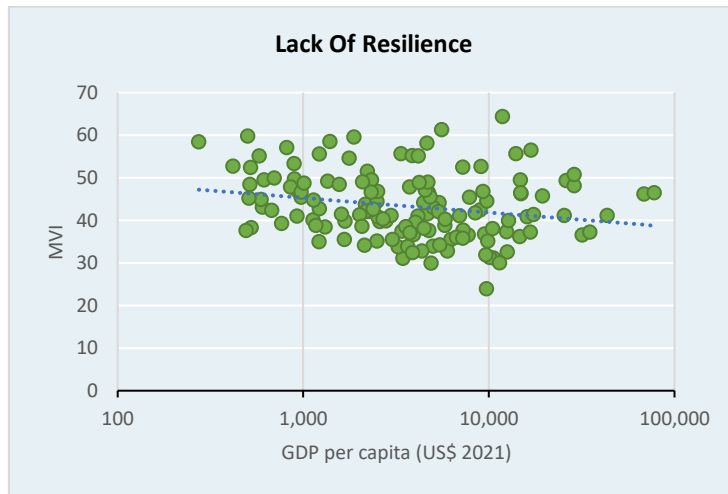
**Annex A: Data Analysis by Sub-Index**

**(1) VULNERABILITY**



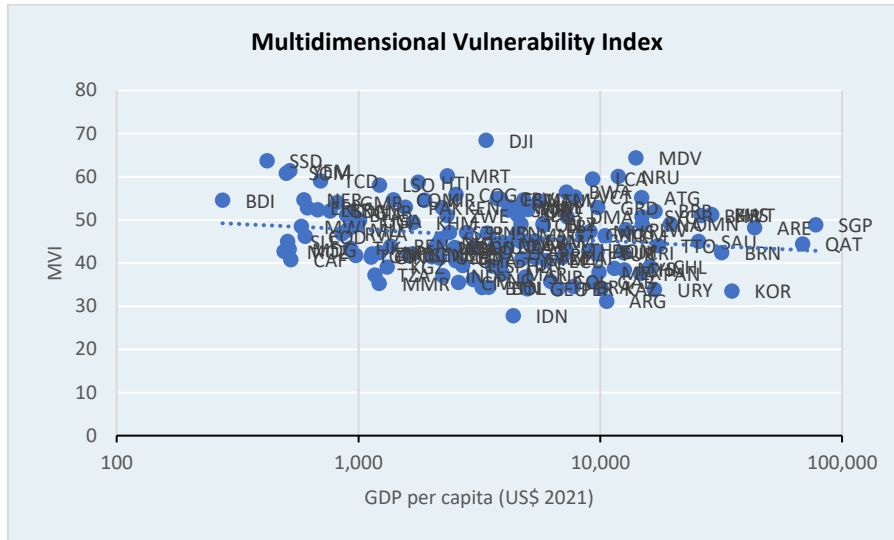
The correlation shown makes sense; you would expect that the potential size of shocks not to vary too much with income.

**(2) LACK OF RESILIENCE**



Resilience is the weakest sub-part of the index. Using the current indicators there seems little a country can do to lower its "LackOfResilience" score as a result it is essentially mirroring vulnerability, rather than pointing to the potential to manage that vulnerability. The lack of potential for movement on resilience greatly reduces the potential usefulness of this element for decisions on financing. Singapore (46.5) has about the same resilience score as Zimbabwe (46.6) which does not make sense given on-the-ground realities and the different outcomes of similar shocks.

(3) MVI



The overall MVI changes little over the course of economic development. This is partly due to the “LackOfResilience” score capturing development, but also because of the way that Vulnerability and LackOfResilience are combined with a quadratic mean. We suggest that Vulnerability and LackOfResilience should be multiplied together. As it stands, there is almost no amount of resilience that can combat vulnerability – but in practice we know that there is a significant difference in impact from a hurricane hitting countries with differing resources, regulatory frameworks and standards of construction.

**Annex B: Our understanding of MVI definition**

Through replicating the prototype spreadsheet, we understand the MVI to be constructed as follows:

$$MVI = \sqrt{\frac{Vulnerability^2 + LackOfResilience^2}{2}}$$

Where Vulnerability is defined as:

$$Vulnerability = \sqrt{\frac{V_{econ}^2 + V_{env}^2 + V_{social}^2}{3}}$$

$$V_{econ} = \sqrt{\frac{Openness^2 + \frac{1}{2}ExConcentration^2 + \frac{1}{2}ExInstability^2 + FoodFuelDep^2}{3}}$$

$$V_{env} = \sqrt{\frac{NH_{victim}^2 + NH_{damage}^2 + Shock_{rain}^2 + Shock_{temp}^2 + Ecosys_{dryland}^2 + Ecosys_{coast}^2}{6}}$$

$$V_{social} = \sqrt{\frac{Epidemics^2 + \frac{1}{2}RegionalConflict^2 + \frac{1}{2}RegionalViolence^2 + Refugees^2}{3}}$$

And "Lack Of Resilience" is defined as:

$$LackOfResilience = 1 - \sqrt{\frac{R_{econ}^2 + R_{env}^2 + R_{social}^2}{3}}$$

$$R_{econ} = \sqrt{\frac{Connnectivity^2 + Population^2 + \frac{1}{2}GFCF^2 + \frac{1}{2}ProductionConcentration^2}{3}}$$

$$R_{env} = \sqrt{\frac{RenewableFreshwater^2 + CropLand^2 + TreeCover^2}{3}}$$

$$R_{social} = \sqrt{\frac{\frac{1}{2}DepRatio^2 + \frac{1}{2}PopDensity^2 + SocialServices^2 + WomenInParliament^2}{3}}$$

$$SocialServices = \sqrt{\frac{BasicSanition^2 + U5M^2 + SchoolingYears^2}{3}}$$