1. Multi-dimensional Skilling, Inequality & Pandemic Index: Conceptualization, and simulated scenarios for Africa

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Has global growth been in tandem with lowering inequality and well-being? It is an age-old question analysed through different lenses. In this paper, I will provide an integrated empirical understanding using the UNU-WIDER World Income Inequality Database (WIID) database as to how the low-skilled, inequality and catastrophic events have affected human development and capabilities, and subsequently inequality. The conceptual framework can be triangulated as follows. It is based on the much popular sustainability framework of social, environmental, and economic factors (Assembly 2015). I propose this index as a possible understanding of the well-being of nations ever since the onset of the pandemic. My research objectives are as follows, (a) map the WIID inequality measures, catastrophy, and education related indicators from the Our World In Data, University of Oxford database, UNDP Human Development Index, and the World Bank Ease of Doing Business Index for all African nations; (b) perform a distributional analysis of the different chosen indicators; (c) construct a multidimensional SIPI (Skilling Inequality Pandemic Index) using the Alkire-Foster methodology (Alkire & Foster, 2011), and rank countries; (d) simulate the datasets and index values on different extreme events using Alkire et al., (2021) methodology; and (d) suggest suitable futuristic policy recommendations. There is abundant literature on the importance of the different chosen indicators for the measurement and reflection of economic growth and well-being (Hanushek & Woessmann, 2010; König & Winkler, 2020; Sarkodie & Owusu, 2020, among others). As a preliminary exercise to substantiate the concept of the proposed SIPI, I have prepared the following database focussing on African nations. There is a plethora of documentation on the importance of technical skills, entrepreneurship, child health and well-being on inequality, and growth in the African region (OECD 2007; Adusei 2016; Allais 2012, among others). The detailed explanation of the Table is as follows:

i. Variables based on WIID database: The year variable pertains to the WIID inequality-related variables across countries for the latest year: Gini ratio, median income, the ratio of the income of top 20% to the bottom 20%, the proportion of the bottom 40%.
ii. Variables based on UNDP database: Human Development Index (2017).
iii. Variables based on Our World in Data, University of Oxford database: Covid cases (year 2020-21), Stringency Index (year 2020-21), Corruption Perception Index, Terrorism fatalities (in number) (2017), Child mortality (2019), Internally displaced persons, new displacement associated with disasters (2017), Women with no education (Barro-Lee: Percentage of female population age 15+ with no education) (latest year), and Tertiary education (in %) (2010, share of population older than 14 years that has completed tertiary education) (latest year).
iv. Variables based on World Bank database, Ease of doing business index (latest year).

The indicators on inequality are all from the WIID database. The indicators on skilling and entrepreneurship are from the World Bank and the University of Oxford database. Catastrophic events are those of terrorism, COVID-19, corruption, and child mortality. A rank of one on the ease of doing business index implies that the country has the most business-friendly regulations in place. The COVID 19 cases reported are the highest country daily new confirmed COVID cases per million people till date. I report the range or the gap between the highest and the lowest values of the Stringency Index. Higher

the range the poor the enforcement of COVID protocols in the country. The Stringency Index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region. The Corruption Perception Index scores countries on a scale of 0-100, where 0 means that a country is perceived as highly corrupt and 100 means that a country is perceived as very clean. The indicator is representative of expert opinion, as it is constructed by taking the averages of various standardized expert surveys, including those from the Bertelsmann Foundation, the World Economic Forum, the World Bank, and many others. I rank countries by their performance on each indicator. Those approximately at the bottom 20% or the outliers of the distribution were color-coded. The preliminary disaggregated dashboard analysis substantiates our conceptual framework. Countries that perform poorly on all three dimensions are Benin, Sierra Leone, and Zambia. Namibia, the most unequal African nation performs poorly on education, corruption, and the stringency index. The future analysis involves the construction of the multi-dimensional index, identification of the dimension, and the indicator that contributes a larger change in the ranking of the country on the overall measure of well-being. Simulated scenarios will help one anticipate how resilient the country is, track its progress on attaining the SDG 10 Goal and sub-goals, and identify practical policy implications."