Ethiopian Economics Association (EEA)

MULTIDIMENSIONAL DEVELOPMENT INDEX (MDI)

Benchmarking with Global Achievements

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Research Report 001/2023

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CONTENT

EXECUTIVE SUMMARY

Development is a multidimensional undertaking with multiple objectives which can be measured through comprehensive investigation of achievements and progress of goals and targets. The Multidimensional Development Index (MDI) is a unique measure of development designed to address the multidimensional aspects of development. It is intended to measure multiple dimensions of development such as economic, social, governance, and political dimensions. The MDI aggregates 14 measures of development grouped into two broad dimensions (socioeconomic development and governance). The 14 pillars are aggregated into a single unique index measuring the state of multidimensional development of nations.

The MDI is particularly aimed to

1. Develop a new multidimensional development index (MDI) measuring the state of development of nations;
2. Rank countries and economies with the new index and determine their development status;
3. Estimate development gains and losses experienced by countries around the world;
4. Measure global multidimensional development gaps; and
5. Identify the underlying determinants of multidimensional development around the world.

Methodology

The MDI uses secondary data collected from global official sources. The secondary data on measures of development produced by different institutions are harmonized to align them with the definitions and methods used in the design and estimation of the MDI.

The socioeconomic development dimension of the MDI has eights pillars:

- **Human Development Index (HDI),** to capture the state of development of nations in health, education, and living standard.
- **Infrastructure and market access** to measure the state of communications, energy, water, transport, border administration, open market scale, import tariff barriers, and market distortions.

- **Economic quality** to measure the fiscal sustainability, macroeconomic stability, productivity and competitiveness, dynamism, and labor force participation.
- **Investment environment** to measure the state of property rights, investor protection, contract enforcement, financing ecosystem, and restrictions on international investment.
- **Living conditions** to measure the state of access to material resources, nutrition, access to basic services, shelter, connectedness or networking, and protection from harm.
- **Enterprise conditions** to measure the state of enterprise and private sector conditions of countries in terms of domestic market contestability, environment for business creation, burden of regulations, labor market flexibility, and price distortions.
- **Index of gender inequality (IGI)** to measure the loss of achievement within a country due to gender inequality due to differential access between men and women to reproductive health, empowerment, and labor market participation.
- **Environmental performance index (EPI)** to measure the performance of a government on environmental quality and resource use efficiency in terms of climate change, environmental health, and ecosystem vitality.

The governance dimension has six pillars:
- **Voice and accountability** to measure perceptions on participation of citizens in government elections, as well as freedom of expression, association, and a free media.
- **Political stability and absence of violence** to measure the likelihood of government to be destabilized or overthrown by unconstitutional means.
- **Government effectiveness** to measure the quality of public services, the quality of the civil service and its independence from political interference, the quality of policy formulation and implementation, and credibility of government and its commitment to such policies.
- **Regulatory quality** to capture the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

- **Rule of law** to capture the extent of confidence of agents in and abide by the rules of society such as the quality of contract enforcement, property rights, the police, and the courts.
- **Fragile States Index (FSI)** to capture the pressures that states experience and their capacity to manage these pressures arising from cohesion, economic, political, social, and external factors.

The data on the 14 pillars of development selected for the MDI are transformed to uniform percentage measures. The real weights of pillars are estimated by regression-based decomposition methods from which their relative and absolute contributions to the overall MDI and the two dimensions are computed.

The MDI is aggregated as the geometric mean of the weighted pillars. The development gaps between countries, regions or other groupings are estimated by Blinder–Oaxaca decomposition methods.

The status of multidimensional development of nations is determined by their performance in the three measures: Multidimensional Development Index (MDI), Socioeconomic Development Index (SDI), and Governance Status Index (GSI). Countries are accordingly grouped into five categories with their achievements in the three measures as indicated hereunder.

Development index (%)	Status
Multidimensional development index (MDI)	
$MDI < 20$	Very low
$20 \leq MDI < 40$	Low
$40\% \leq MDI < 60$	Medium
$60\% \leq MDI < 80$	High
$MDI \geq 80$	Very high
Socioeconomic development index (SDI)	
$SDI < 20$	Very low
$20 \leq SDI < 40$	Low
$40\% \leq SDI < 60$	Medium
$60\% \leq MDI < 80$	High
$SDI \geq 80$	Very high

Governance status index (GSI)	
$GSI < 20$	Very weak
$20 \leq GSI < 40$	Weak
$40\% \leq GSI < 60$	Moderate
$60\% \leq GSI < 80$	Good
$GSI \geq 80$	Very good

Country Rankings

A total of 194 countries/ economies are investigated for the state of their multidimensional development in 2021. Countries ranked with their MDI and SDI are 153 whereas those ranked with their GSI are 179.

Ranking with the MDI

A total 153 countries are rankled with their multidimensional development. The top five countries with high MDI are:

1. Denmark (73.9%)
2. Switzerland (73.4%);
3. Finland (73.3%);
4. Sweden (73.1%); and
5. Netherlands (72.7%).

The bottom five countries with very low MDI are:
1. Central African Republic (11.1%);
2. Congo Democratic Republic (12.6%);
3. Afghanistan (12.8%);
4. Chad (15.6%); and
5. Venezuela (16.7%).

Ranking with the SDI

A total 153 countries are ranked with their socioeconomic development. The top five countries with high SDI are:

1. Denmark (70.7%);
2. Switzerland (69.9%);
3. Singapore (69.8%);
4. Sweden (69.6%); and
5. Netherlands (69.5%).

The bottom five countries with very low SDI are:
1.   Chad (13.9%);
2.   Central African Republic (14.5%);
3.   Congo Democratic Republic (17.7%);
4.   Guinea-Bissau (18.8%); and
5.   Sera Leon (18.8%).

Ranking with the GSI

A total of 179 countries are rankled with their governance status. The top five countries with good governance are:
1.   Finland (78.7%);
2.   Norway (78.6%);
3.   Denmark (78.3%;)
4.   Switzerland (78.2%); and
5.   Luxembourg (78.0%).

The bottom five countries with very weak governance are:
1.   Yemen (1.7%);
2.   Somalia (1.8%);
3.   Syria (1.9%);
4.   South Sudan (2.0%); and
5.   Venezuela (4.3%).

World Average Performance

The average multidimensional development of the world falls under low governance and medium development:
●   Medium multidimensional development (41.6%);
●   Medium socioeconomic development (43.6%); and
●   Weak governance status (39.6%).

Multidimensional development performance of the world in the 14 pillars varies from 34.4 percent for gender inequality to 72.0 percent for human development:
1.   Human development (72.0%);
2.   Living conditions (68.8%);
3.   Political stability (59.5%);
4.   Rule of law (59.4%);

5.   Voice and accountability (59.2%);

6.   Regulatory quality (59.0%);

7.   Government effectiveness (58.9%);

8.   State fragility (55.7%);

9.   Enterprise conditions (54.9%);

10. Infrastructure and market access (54.1%);

11. Investment environment (53.1%);

12. Economic quality (49.6%);

13. Environmental performance (43.2%); and

14. Gender inequality (34.4%).

The direct interdependence between socioeconomic development and governance is very strong (87.0%), which suggests that socioeconomic and governance policies and their outcomes are strongly complementary.

The MDI measures and their pillars are also strongly aligned with the Sustainable Development Goals (SDGs) of the United Nations. There is very strong and positive interdependence between the MDI measures and the SDG progress index:

- The correlation between SDG progress index and - MDI is 89.2 percent;
- The correlation between the SDG progress index and the SDI is 93.7 percent; and
- The correlation between the SDG progress index and the GSI is 79.2 percent.

Development Gains and Losses

The relative contribution of governance (53.6%) to the overall MDI is greater than the contribution of socioeconomic development (46.3%). The relative contributions of the 14 pillars to the overall MDI significantly varies:

1.   Government effectiveness (16.6%);

2.   Regulatory quality (15.8%);

3.   Rule of law (15.6%);

4.   Living conditions (13.3%);

5.   Infrastructure and market access (13.1%);

6.   Voice and accountability (10.8%);

7.   Political stability (10.0%);

8.   Investment environment (9.1%);

9.   Human development (9.0%);

10. Enterprise conditions (6.4%);
11. Economic quality (5.7%);
12. Environmental performance (4.2%);
13. Gender inequality (-14.3%); and
14. State fragility (-15.3%).

The global development losses arising from gender inequality and state fragility are substantially high. Countries lose around 29.6 percent of their development achievements due to gender inequality and state fragility. A unit percentage rise in state fragility and gender inequality, respectively, results in 0.58 and 0.25 percent loss of development achievements.

Development Gaps and Determinants

The development performance of nations is measured by estimating the deviation from the world average. The MDI, SDI, and GSI performance of countries is compared with the world avenge to measure the extent to which countries are far below or above from the world average performance. The distribution of countries by their absolute development gaps is strongly affected by governance status:

- 86 countries with worse MDI;
- 83 countries with worse SDI and GSI;
- 67 countries with better MDI;
- 58 countries with better SDI and GSI;
- 22 countries with worse SDI but better GSI; and
- 16 countries with better SDI but worse GSI.

Multidimensional development around the world is significantly determined by land area, age dependency, globalization, political freedom, ethnic fractionalization, and vulnerability to climate change and other global challenges. Most of these underlying factors are beyond the control of individual countries which should be

Policy Recommendations

The following are the most important concluding remarks and recommendations synthesized from the findings:

1. All the 14 pillars are important in explaining the MDI. To realize aspirations of multidimensional and sustainable development goals,

countries should give due policy focus to all the multidimensional development pillars.

2. Poor governance is the primary challenge of multidimensional development around the world. The world is suffering from poor governance and political leadership. Nations should improve their governance and leadership quality with active participation of citizens and formation of responsible and accountable governments.

3. Socioeconomic development and governance are strongly and increasingly complementary. Nations should give balanced focus to both socioeconomic and governance (or political) policies and align them to realize positive policy outcomes.

4. State fragility and gender inequality are the major causes of development losses experienced by nations. In order to enhance multidimensional development, nations are required to ensure political stability and gender equality through democratic governance and gender-transformative policies.

5. The MDI measures are strongly aligned with the SDGs. Nations can assess their state of socioeconomic development, governance status, and achievement of the SDGs using the MDI measures.

6. Multidimensional development is significantly determined by six factors. Nations are required to assess the development costs and benefits arising from these underlying factors and accordingly design their development interventions related to the major 14 pillars of development.

ACRONYMS

Acronym	Meaning
AS	Arab States
EAP	East Asia and the Pacific
ECA	Europe and Central Asia
EEA	Ethiopian Economics Association
EPI	Environmental Performance Index
FFP	Fund for Peace
FSI	Fragile States Index
GDP	Gross Domestic Product
GNI	Gross National Income
GSI	Governance Status Index
HDI	Human Development Index
ICT	Information Communication Technology
IDPs	Internally Displaced Persons
IGI	Index of Gender Inequality
LAC	Latin America and the Caribbean
LI	Legatum Institute
LPI	Legatum Prosperity Index
MDI	Multidimensional Development Index
NA	North America
SA	South Asia
SDGs	Sustainable Development Goals
SDI	Socioeconomic Development Index
SID	Society for International Development
SSA	Sub-Saharan Africa
UNDP	United Nations Development Program
WGI	Worldwide Governance Indicators
YCELP	Yale Center for Environmental Law & Policy

FIGURES

TABLES

1. INTRODUCTION

Since the second half of the 20th century, development has received increased importance in the global development discourse across nations. Development is a multidimensional undertaking intended to achieve a higher quality of life for all people (UNDP, 2022). Sustainable development requires sustainable economic growth, democracy, good governance and administration, economic freedom, political rights, civil liberties, gender equality, and preservation and integrity of the environment, which are the necessary foundations for the realization of social and people-centered sustainable development. Sustained economic growth is essential to the economic and social development of all countries. Democracy and the empowerment of women and their full participation in all spheres of society is fundamental for development.

Development is a multidimensional process in which economic, social, governance, and political dimensions interact and determine the state of development of a nation. Development results in the achievement of multiple objectives and goals requiring simultaneous investigation. Development involves transformation in multiple dimensions and indicators including economic, social, environmental, governance and demographic transformation. It is a process that creates growth, progress, positive and quality change or the addition of physical, economic, environmental, social and demographic transformation (SID, 2022). Development raises the visible level and quality of life of the population, and the creation or expansion of local and regional income and employment opportunities, without damaging the resources of the environment.

Development is often measured by using different indicators and indexes. These measures include Gross Domestic Product (GDP), Gross National Product (GNP) or GNP per capita, Birth and death rates, Human Development Index (HDI), Index of Gender Inequality (IGI), Globalization Index (GI), Global Innovation Index (GII), Multidimensional Poverty Index (MPI), Bertelsmann Transformation Index (BTI), Legatum Propensity Index (LPI), Productive Capacity Index (PCI), Fragile States Index (FSI), Index of Economic Freedom (IEF), World Happiness Index (WHI), Corruption Perception Index (CPI), and Worldwide Governance Indicators (WGI), just to mention a few widely used measures. Gender inequality and state fragility adversely affect development by causing losses in development achievements.

Consequently, given the multiple dimensions and indicators of development, it has increasingly become complicated to gauge the extent of development using a

single composite indicator. The quest for a unique measure of development addressing limitations of existing development measurement still remains to be the primary challenge of development professionals and practitioners.

This study develops a new Multidimensional Development Index (MDI) with two dimensions and 14 pillars identified to be the most important measures of multidimensional development in 194 countries/ economies around the world. The MDI assesses and ranks the state of multidimensional development as well as development gains, losses and gaps experienced by countries, and identifies the underlying determinants of multidimensional development.

2. METHODOLOGY

2.1 Types and Sources of Data

This study widely utilizes secondary data collected from official global sources. Longitudinal/panel data are constructed from global timeseries of standardized indices measuring several aspects of development. The major sources of secondary data used are briefly described below.

Human Development Index (HDI)

The Human Development Index (HDI) measures a nation's health, education, and standard of living. It has been published since 1990 by the United Nations Development Program (UNDP) covering 197 countries and economies around the world.

Legatum Prosperity Index (LPI)

The Legatum Prosperity Index (LPI) is developed and reported by the Legatum Institute (LI) to highlight the strengths and weaknesses of nations to "determine the economic choices that need to be made to further build inclusive societies, open economies, and empower people to drive prosperity". It has been published since 2007 covering 167 countries around the world.

Worldwide Governance Indicators (WGI)

The Worldwide Governance Indicators (WGI) is a research dataset summarizing the views on the quality of governance provided by a large number of enterprises, citizens and expert survey respondents in industrial and developing countries. It has been produced by the World Bank since 1996 covering 214 countries and territories around the world.

Fragile States Index (FSI)

The Fragile States Index (FSI) is produced by The Fund for Peace (FFP) to assess the risk and vulnerability of states to collapse. It is a tool to highlight the normal pressures that all states experience and to identify when those pressures are outweighing a state's capacity to manage them. It has been published since 2006 covering 179 countries around the world.

Index of Gender Inequality (IGI)

The Gender Inequality Index (GII) (or Index of Gender Inequality, IGI, in this case), is an index introduced by the UNDP to measure gender disparity around the world. It is a composite measure to quantify the loss of achievement within a country due to gender inequality. It has been published since 2007 covering around 190 countries across the globe. It uses three dimensions to measure the opportunity cost of gender inequality: reproductive health, empowerment, and labor market participation.

Environmental Performance Index (EPI)

The Environmental Performance Index (EPI), published by the Yale Center for Environmental Law & Policy (YCELP), provides a summary of the state of sustainability around the world. The EPI ranks countries on their progress toward improving environmental health, protecting ecosystem vitality, and mitigating climate change.

2.2 Conceptual Framework

Currently, development around the world is measured by several indices capturing some aspects of devolvement. Different scholars and institutions try to measure economic, social, political, cultural, governance, and other aspects of development. Though most of them are composite indices, they are less comprehensive and fail to measure many aspects of development status of nations.

This study develops a new, two-dimensional development index from 14 pillars (Figure 2.1). The proposed multidimensional development index (MDI) indexes the 14 pillars developed by other institutions into an index number with two new dimensions of development. All pillars of the MDI have undergone through rigorous differential diagnosis of longitudinal datasets of 15 years and 194 countries around the world.

Their relative contributions to multidimensional development gains and losses are estimated from the dynamic MDI to assign real and consistent weights to all pillars and dimensions of the MDI. All pillars included in the MDI framework are selected by their relative contribution (at least 1%) in explaining the MDI.

Figure 2.1: Conceptual framework of multidimensional development

Socioeconomic Development Index (SDI): The SDI is a composite index of eight pillars measuring state of socioeconomic development of nations around the world. The Human Development Index (HDI) measures economic wellbeing using GNI per capita as a proxy for economic wellbeing. It also measures education and health, which are the major indicators of social development. The other five pillars under this dimension are adapted from Legatum Prosperity Index (LPI) produced by the Legatum Institute (LI). Economic Quality (as a measure of macroeconomic stability and sustainability of economies), Infrastructure and Market Access, Investment Environment, Living Conditions, and Enterprise Conditions are selected to compute the SDI. The rest two pillars are EPI and IGI to measure development gains and losses arising, respectively, from environmental performance and gender inequality.

Governance Status Index (GSI): The GSI is a measure of governance or leadership quality of nations and economies to gauge whether or not institutional functions are directed and controlled according to established structures and processes. The index is an aggregate measure of five selected worldwide governance indicators (WGI) produced by the World Bank and the FSI developed by the FFP. Voice and Accountability, Political Stability and Absence of Violence/ Terrorism, Government Effectiveness, Regulatory Quality, and Rule of Law are the pillars considered in the WGI and the FSI to measure development losses arising from state fragility.

2.3 Data Validation Process

Before using the data for MDI estimation, the type, coding, coverage, format, consistency, and uniqueness is checked. Estimation of the MDI passes through the following six-stage rigorous validation process.

Stage 1: Data collection: The secondary data required for the MDI estimation is collected from official global sources described above.

Stage 2: Data compilation and manipulation: The secondary data collected from different sources are prepared in different formats, spreadsheets, software applications, measurements, and aggregations. These datasets are reorganized, classified, coded, recoded, encoded, transformed, aggregated, manipulated and uniquely identified in such a way that they are in line with the definitions and measurements of the MDI dimensions and pillars under investigation.

Stage 3: Decision on missing data: Once the missing data and variables are identified, the research team decides on methods of filling such missing data and variables. Missing observations supposed to have negligible effects on the results of the study are filled by linear interpolation and extrapolation methods. If the missing data and variables are expected to significantly affect the results, they are dropped or replaced with other proxies and the MDI is estimated with due acknowledgment of the constraints faced and the remedial measures taken.

Stage 4: Data harmonization: At this stage, the secondary data organized with the MDI requirements are combined and made suitable for analysis. This includes merging the different datasets into a single dataset with comparable view of the data from the different sources. The required data for the MDI estimation is made ready in longitudinal/ panel data format suitable for analysis with Stata and expected online analysis using a programming software.

Stage 5: Measuring relevance of the pillars: Proposed pillars explaining the MDI are checked for overlap and relevance. All proposed pillars with negligible relative contribution (below 1%) are dropped.

Stage 6: Estimation of the MDI: At this stage, data is analyzed and the results ready for interpretation and reporting.

2.4 Methods of Data Analysis

2.4.1 Development gains and losses

There are generally few readily available methods and commands for aggregate data decomposition. In order to measure the importance of each dimension or pillar, the MDI is decomposed using regression-based decomposition method by its predicted components or pillars. The decomposition technique estimates the model of the MDI as a function of the sources or pillars and predict the relative contribution of each pillar, the constant, and of the residual to the MDI (total variation).

Suppose the MDI and set of pillars or covariates $MDI = \{x_1, x_2, \dots, x_k\}$. Using a linear model specification, we can have the following model (Araar & Duclos, 2008):

$$MDI = X'\beta + \varepsilon \qquad\qquad (1)$$

where β and ε, respectively, denote the coefficients (relative contributions measuring development gains and losses) to be estimated, and the error term.

Decomposing the MDI with this method assumes that the aggregate variable is the horizontal sum of variations contributed by each source. Accordingly, the contributions of all the pillars, the constant, and the residual add up to one or 100. The relevance of development pillars is evaluated by estimating their absolute and relative contributions in explaining the intertemporal and spatial dynamics of the index they are intended to explain.

2.4.2 Weighting

Assigning weights to pillars and indicators is the primary challenge of an indexing process. Many institutions and researchers assign weights arbitrarily or using other less objective methods. Assigning real and consistent weights estimated

from longrun trends of pillars is the unique scientific feature of the method employed in this study.

Decomposition of the MDI into the 14 pillars is used to estimate weights to each dimension and pillar. If all the 14 pillars are assumed to have the same weight, they are given 0.071 weight each (1 divided by 14). This level of relative contribution with the assumption of equal weights serves as a reference weight. Accordingly, the weight to be assigned to each pillar is estimated as the relative contribution of the pillar divided by the reference weight (adjusted by the reference weight) as follows:

$$w_i = \frac{x_i}{\alpha} \tag{2}$$

where w_i the relative weight estimated for pillar i; a is the reference weight (0.071 in this case); and x_i is the relative contribution of the pillar under investigation.

This method of estimation of development gains and losses as relative contributions enables to assign real weights to all dimensions and pillars. Based on the decomposition results, real relative weights are estimated (Figure 2.2).

Figure 2.2: Relative weights of pillars to the MDI
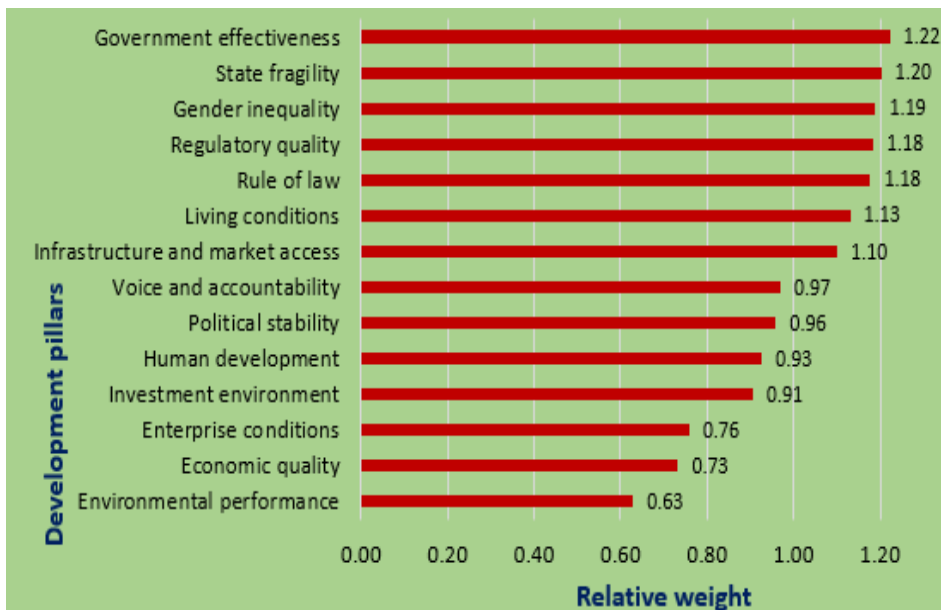
Note: Pillars with longrun relative contribution below 1% are dropped.
Source: Decomposition and estimation results from the global indies (2016-2021)

2.4.3 Estimation of the MDI

Estimation process of the MDI can be summarized by the following steps.

Step 1: Estimate the reference weight: The reference weight is computed by dividing one (1) by the number of pillars considered in the MDI (which is 0.071=1/14 in this case).

Step 2: Estimate the MDI with the assumption of equal weights: Estimation of the MDI is possible by estimating the MDI with the assumption of equal weights to all pillars.

Step 3: Estimate development gains and losses: Decomposition of the MDI into the 14 pillars estimates the relative development contribution explained by each pillar and that of the unexplained variation (captured by the constant and the residuals).

Step 4: Compute weights to each pillar: The relative contributions estimated in Step 3 are used to compute the actual weights to each pillar.

Step 5: Estimate the weighted MDI: At this step, the weighted MDI is estimated using the weighted pillars.

Step 6: Compute the weights of dimensions: The weights of dimensions are computed by adding the weights of pillars included in each dimension. The MDI is aggregated as an arithmetic mean of the 14 weighted pillars.

2.4.4 Development status

The status of multidimensional development of countries and economies is determined by the range of the value of dimensions with five categories (Table 2.1).

Table 2.1: Determination of development status

Development index (%)	Status
Multidimensional development index (MDI)	
$MDI < 20$	Very low
$20 \leq MDI < 40$	Low
$40\% \leq MDI < 60$	Medium
$60\% \leq MDI < 80$	High
$MDI \geq 80$	Very high
Socioeconomic development index (SDI)	
$SDI < 20$	Very low
$20 \leq SDI < 40$	Low

Development index (%)	Status
$40\% \leq SDI < 60$	Medium
$60\% \leq MDI < 80$	High
$SDI \geq 80$	Very high
Governance status index (GSI)	
$GSI < 20$	Very weak
$20 \leq GSI < 40$	Weak
$40\% \leq GSI < 60$	Moderate
$60\% \leq GSI < 80$	Good
$GSI \geq 80$	Very good

2.4.5 Development gaps

In order to measure development gaps between two groups, there are basically two kinds of methods to decompose aggregate variables, decomposition based on micro and macro data. The Blinder-Oaxaca decomposition approach is the widely employed method using micro data. Decomposition methods based on group macro data include linear and nonlinear rate decomposition and various Gini decomposition methods. Gaps or differences between groups (e.g., year, region, development status, and other variables) can be measured using this decomposition method.

Given two groups, A and B; an outcome variable, Y; and a set of predictors, the mean outcome difference is estimated as follows (Blinder, 1973; Oaxaca, 1973; Oaxaca & Mansom, 1994),

$$R = E(Y_A) - E(Y_B) \tag{3}$$

where E(Y) denotes the expected value of the outcome variable accounted for by group differences in the predictors.

Based on the Blinder–Oaxaca decomposition for linear regression model

$$Y_t = X_t'\beta_e + \epsilon_\ell, \ E(\epsilon = 0 \ \ \ell\epsilon(A,B) \tag{4}$$

where X is a vector containing the predictors and a constant, β contains the slope parameters and the intercept, and ϵ is the error.

The mean outcome difference can be expressed as the difference in the linear prediction at the group-specific means of the regressors:

$$R = E(Y_A - E(Y_B) = E(X_B)'B_A - E(X_{B)}'B_B \tag{5}$$

To identify the contribution of group differences in predictors to the overall outcome difference, this equation can be rearranged,

$$R = \{E(X_A - E(X_B)\}' B_B + E(X_B)'(B_A - B_B) + \{E(X_A) - E(X_{B)}\}'(B_A - B_B) \tag{6}$$

This is a "threefold" decomposition where the outcome difference is divided into three components when micro data is available:

$$R = E + C + I \tag{7}$$

The first component, $E = \{E(X_A - E(X_B)' B_B$, amounts to the part of the differential that is explained by group differences in the predictors (the "endowments effect"). The second component, $C = E(X_B)'(B_A - B_B)$, measures the unexplained effect or the contribution of differences in the coefficients (including differences in the intercept). The third component, $I = \{E(X_A) - E(X_{B)}\}'(B_A - B_B)$, is an interaction term accounting for simultaneous interaction of differences in endowments (E) and coefficients (C) between the two groups. This decomposition is formulated from the viewpoint of group B which means, the group differences in the predictors are weighted by the coefficients of group B to determine the endowments effect (E). The E component measures the expected change in group B's mean outcome if group B had group A's predictor levels. Similarly, for the C component (the "coefficients effect"), the differences in coefficients are weighted by group B's predictor levels. The C component measures the expected change in group B's mean outcome if group B had group A's coefficients. Accordingly, the differential can also be expressed from the viewpoint of group A, yielding the reverse threefold decomposition[5].

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[5] An alternative decomposition relevant to this method is a twofold decomposition. In this case, the first component is the part of the outcome differential that is explained by group differences in the predictors (the "quantity effect"), and the second component is the unexplained part. The latter is usually attributed to discrimination and also captures all the potential effects of differences in unobserved variables.

2.5 Definition and Working Hypothesis

The pillars of the MDI are selected by differential diagnosis of their longrun dynamics for the period 2007 to 2021. A total of 14 pillars are identified to have significant contributions to the multidimensional development of nations.

Human Development Index (HDI): The HDI, developed by the UNDP, is an aggregate index of development measured by health, education and economic growth. It has been used to measure the multidimensional measure of development of nations worldwide. It is included as one of the 14 pillars explaining the MDI in this study.

Infrastructure and market access: Infrastructure and market access is one of the pillars of the Legatum Prosperity Index (LPI) produced by the Legatun Institute (LI). It is an aggregate index of communications, energy, water, transport, border administration, open market scale, import tariff barriers, and market distortions. It is considered as a pillar of the MDI measuring infrastructural development and market access.

Economic quality: Economic quality is an aggregate measure of the macroeconomy of nations developed by the LI. It is an index measuring fiscal sustainability, macroeconomic stability, productivity and competitiveness, dynamism, and labor force participation. It is one of the pillars of the MDI measuring macroeconomic performance.

Investment environment: Investment environment is an index developed by the LI to measure the state of property rights, investor protection, contract enforcement, financing ecosystem, and restrictions on international investment. It is one of the pillars in the MDI intended to capture investment environment of countries.

Living conditions: Living condition is a microeconomic measure of welfare estimated by the LI. It is an index measuring the state of material resources, nutrition, access to basic services, shelter, connectedness or networking, and protection from harm. It is one of the pillars of the MDI.

Enterprise conditions: Enterprise condition is an index developed by the LI to measure the state of enterprise and private sector conditions of countries. It is one of the pillars of the MDI measuring domestic market contestability, environment for business creation, burden of regulations, labor market flexibility, and price distortions. It is included as one of the pillars of the MDI to capture such aspects of development.

Voice and accountability: Voice and accountability is an indicator of governance developed by the World Bank known as Worldwide Governance Indicators (WGI). It measures perceptions on participation of citizens in government elections, as well as freedom of expression, association, and a free media. It is one of the pillars of the MDI to measure such aspects of governance.

Political stability and absence of violence: Political stability and absence of violence/terrorism is the other indicator of governance developed by the World Bank. It is one of the pillars of the MDI capturing the likelihood of a government to be destabilized or overthrown by unconstitutional means.

Government effectiveness: Government effectiveness is one of the WGI used to capture the quality of public services, the quality of the civil service and its independence from political interference, the quality of policy formulation and implementation, and credibility of government and its commitment to such policies. It is used as a pillar of governance to measure effectiveness of governments.

Regulatory quality: Regulatory quality is one of the WGI used to capture the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. It is one of the pillars of the MDI used to measure perceptions on regulatory quality of governments.

Rule of law: The last pillar of governance is used to capture the extent of confidence of agents in and abide by the rules of society, including the quality of contract enforcement, property rights, the police, and the courts. It is one of the pillars of the MDI.

Fragile States Index (FSI): The FSI, developed by the FFP, is a measure of risk and vulnerability of states to collapse. It is an aggregate index of three cohesion factors (security apparatus, factionalized elites, and group grievance), three economic factors (economy, economic inequality, and human flight and brain drain), three political factors (state legitimacy, public services, and human rights), two social factors (demographic pressure, and refugees and IDPs), and external intervention. It is one pillar of the MDI used to capture the pressures that states experience and their capacity to manage these pressures. It is expected to adversely affect multidimensional development.

Index of gender inequality (IGI): The IGI is an index introduced by the UNDP (as Gender Inequality Index, GII) to measure gender disparity. It is a composite measure to quantify the loss of achievements within a country due to gender inequality in terms of reproductive health, empowerment, and labor market

participation. It is expected to adversely affect multidimensional development of nations.

Environmental Performance Index (EPI): The EPI, developed by the YCELP, provides a summary of the state of sustainability around the world. It measures the performance of a government on environmental quality and resource use efficiency in terms of climate change, environmental health, and ecosystem vitality. It is expected to positively contribute to multidimensional development of nations.

3. MEASURING DEVELOPMENT

3.1 Relative Importance of Pillars

Decomposition of the MDI into the 14 pillars using a regression-based decomposition method results in the relative contribution of each to the overall MDI (Figure 3.1). The shares of all pillars are nearly comparable, varying from 4.5 percent for environmental performance to 8.7 percent for government effectiveness. The top five pillars more explaining the MDI are government effectiveness (8.7%), state fragility (8.5%), gender inequality (8.4%), regulatory quality (8.4%), and rule of law (8.4%).

The two dimensions of multidimensional development have fairly similar contributions to the MDI. The eight socioeconomic development pillars and the six governance pillars, respectively, contribute 52.3 percent and 47.7 percent to the MDI.

Figure 3.1: Relative contribution of pillars to the MDI (%)
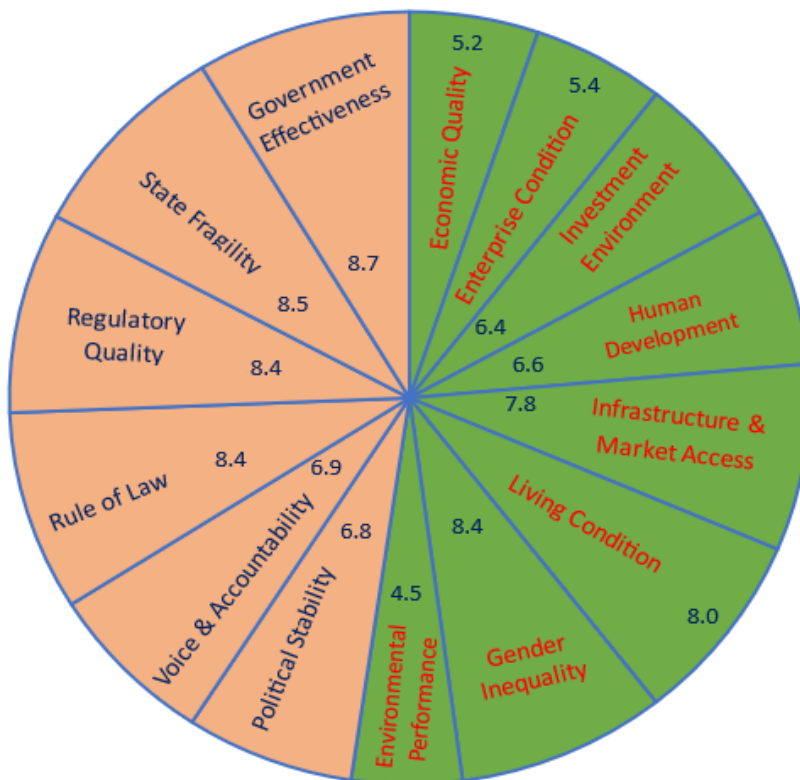
3.2 Multidimensional Development Index (MDI)

A total of 153 countries and economies are investigated and ranked with their MDI in 2021 (Figure 3.2). The top three countries with high multidimensional development in 2021 are Denmark, Switzerland, and Finland. With the exception of Singapore, the top 10 countries with high multidimensional development are from Europe and Central Asia.

Figure 3.2: Top 10 countries with high multidimension development
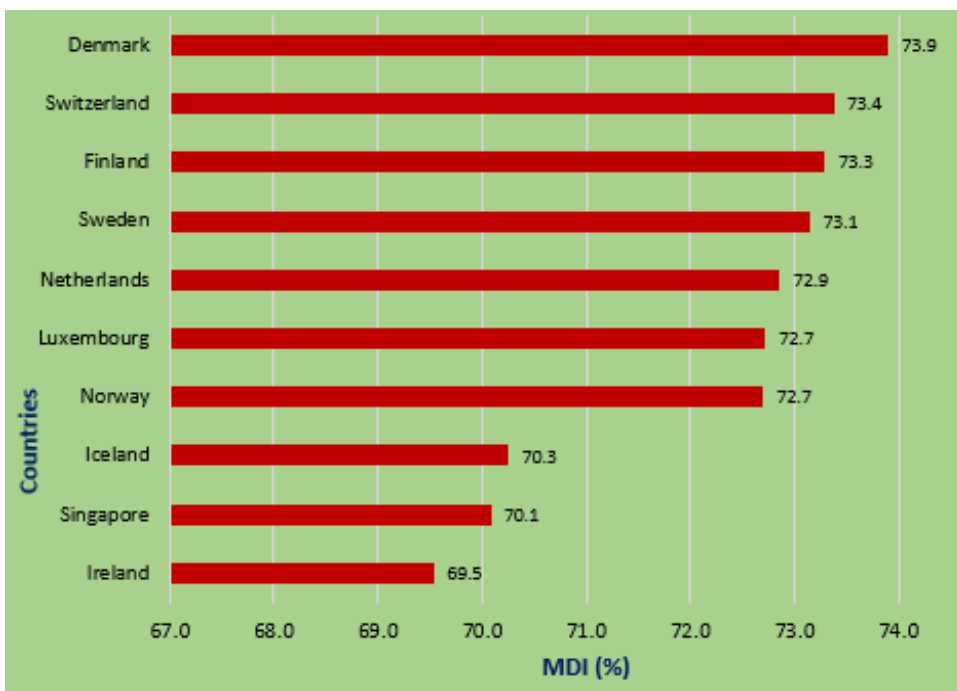
The bottom 10 countries with very low multidimensional development are from SSA and two countries from the LAC and SA regions (Figure 3.3). They have a very low multidimensional development below 20 percent.

The status of all countries and economies is determined by their MDI level (Figure 3.4). In 2021, 11 and 65 countries, respectively, have experienced very low (below 20%) and low (between 20% and 40%) multidimensional development. Only 28 countries have realized high multidimensional development. The remaining 48 countries are in a state of low multidimensional development.

Figure 3.3: Bottom 10 countries with very low multidimensional development
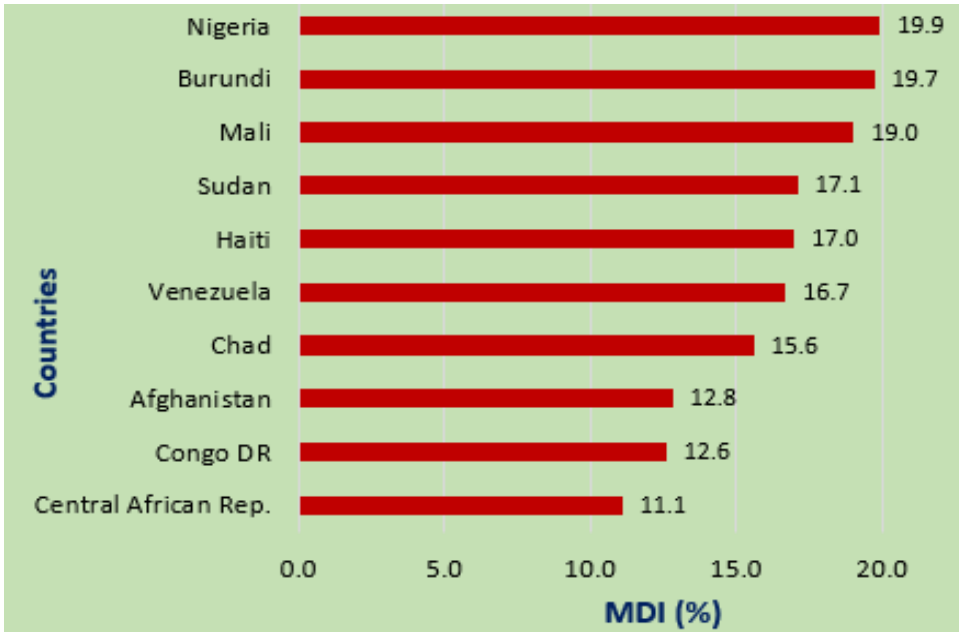
Figure 3.4: Distribution of countries by multidimensional development status
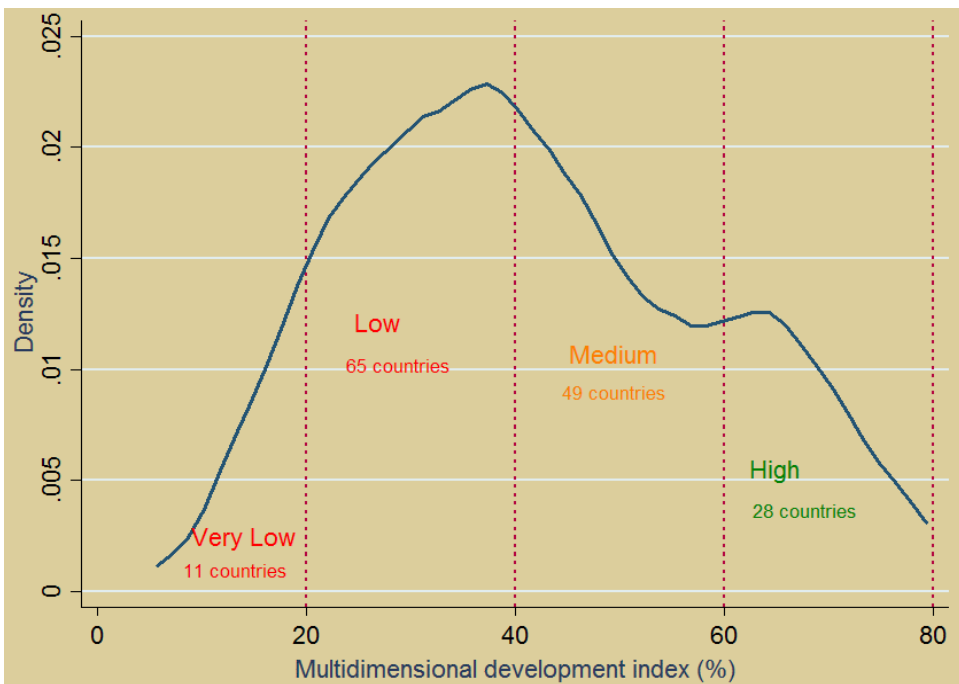
Table 3.1: Ranking countries with multidimensional development

Country/Economy	MDI (%)	Rank	Status
Afghanistan	12.82	151	Very low
Albania	45.00	57	Medium
Algeria	29.39	110	Low
Angola	20.92	139	Low
Argentina	43.42	62	Medium
Armenia	43.32	63	Medium
Australia	69.27	12	High
Austria	68.08	15	High
Azerbaijan	37.52	87	Low
Bahrain	47.61	48	Medium
Bangladesh	26.05	123	Low
Belarus	37.02	89	Low
Belgium	63.58	19	High
Belize	39.36	80	Low
Benin	30.28	107	Low
Bolivia	32.03	103	Low
Bosnia and Herzegovina	41.83	65	Medium
Botswana	43.77	60	Medium
Brazil	41.41	69	Medium
Bulgaria	48.09	47	Medium
Burkina Faso	24.64	126	Low
Burundi	19.74	145	Very low
Cabo Verde	54.20	41	Medium
Cambodia	30.22	108	Low
Cameroon	22.50	134	Low
Canada	68.78	14	High
Central African Rep.	11.10	153	Very low
Chad	15.61	150	Very low
Chile	56.98	35	Medium
China	45.57	54	Medium
Colombia	39.49	78	Low
Congo	20.02	142	Low
Congo DR	12.60	152	Very low

Country/Economy	MDI (%)	Rank	Status
Costa Rica	50.38	46	Medium
Cote d'Ivoire	27.76	120	Low
Croatia	56.77	36	Medium
Cuba	37.72	86	Low
Cyprus	57.51	33	Medium
Czechia	61.32	26	High
Denmark	73.90	1	High
Dominican Republic	41.91	64	Medium
Ecuador	38.72	84	Low
Egypt	32.77	100	Low
El Salvador	38.51	85	Low
Estonia	64.40	17	High
Eswatini	27.81	119	Low
Ethiopia	20.07	141	Low
Finland	73.30	3	High
France	61.93	24	High
Gabon	28.89	114	Low
Gambia	28.90	113	Low
Georgia	47.41	50	Medium
Germany	68.81	13	High
Ghana	36.20	92	Low
Greece	50.48	45	Medium
Guatemala	33.60	98	Low
Guinea	20.96	138	Low
Guinea-Bissau	21.92	135	Low
Guyana	37.27	88	Low
Haiti	16.99	148	Very low
Honduras	29.24	111	Low
Hungary	54.08	42	Medium
Iceland	70.26	8	High
India	35.88	95	Low
Indonesia	39.48	79	Low
Iran	25.77	124	Low
Iraq	22.92	130	Low

Country/Economy	MDI (%)	Rank	Status
Ireland	69.54	10	High
Israel	58.91	31	Medium
Italy	57.21	34	Medium
Jamaica	44.67	59	Medium
Japan	65.70	16	High
Jordan	40.09	77	Medium
Kazakhstan	44.84	58	Medium
Kenya	33.37	99	Low
Kuwait	45.14	56	Medium
Kyrgyzstan	32.45	102	Low
Lao PDR	28.84	115	Low
Latvia	59.60	29	Medium
Lebanon	29.79	109	Low
Lesotho	28.03	116	Low
Liberia	22.93	129	Low
Lithuania	60.41	28	High
Luxembourg	72.72	6	High
Madagascar	23.17	128	Low
Malawi	27.99	117	Low
Malaysia	53.50	43	Medium
Mali	19.05	146	Very low
Malta	62.07	22	High
Mauritania	21.04	137	Low
Mauritius	55.53	39	Medium
Mexico	41.31	71	Medium
Moldova	43.61	61	Medium
Mongolia	41.50	68	Medium
Montenegro	47.43	49	Medium
Morocco	39.29	81	Low
Mozambique	20.20	140	Low
Myanmar	20.00	143	Low
Namibia	41.36	70	Medium
Nepal	30.31	106	Low
Netherlands	72.86	5	High

Country/Economy	MDI (%)	Rank	Status
New Zealand	69.35	11	High
Nicaragua	30.47	105	Low
Niger	21.20	136	Low
Nigeria	19.94	144	Very low
North Macedonia	46.16	52	Medium
Norway	72.70	7	High
Oman	45.53	55	Medium
Pakistan	25.41	125	Low
Papua New Guinea	24.05	127	Low
Paraguay	36.71	90	Low
Peru	40.20	76	Medium
Philippines	36.11	93	Low
Poland	55.97	37	Medium
Portugal	62.04	23	High
Qatar	54.97	40	Medium
Romania	50.66	44	Medium
Russia	38.81	83	Low
Rwanda	35.04	96	Low
Sao Tome and Principe	32.54	101	Low
Saudi Arabia	41.76	66	Medium
Senegal	34.37	97	Low
Serbia	46.18	51	Medium
Sierra Leone	22.54	133	Low
Singapore	70.08	9	High
Slovakia	59.21	30	Medium
Slovenia	62.76	20	High
South Korea	62.65	21	High
Spain	61.65	25	High
Sri Lanka	39.11	82	Low
Sudan	17.11	147	Very low
Suriname	36.35	91	Low
Sweden	73.15	4	High
Switzerland	73.38	2	High
Tajikistan	29.13	112	Low

Country/Economy	MDI (%)	Rank	Status
Tanzania	26.80	122	Low
Thailand	41.68	67	Medium
Togo	22.75	132	Low
Trinidad and Tobago	45.78	53	Medium
Tunisia	40.57	73	Medium
Turkey	41.02	72	Medium
Turkmenistan	31.63	104	Low
Uganda	27.97	118	Low
Ukraine	40.35	75	Medium
United Arab Emirates	58.65	32	Medium
United Kingdom	64.39	18	High
United States	60.75	27	High
Uruguay	55.79	38	Medium
Uzbekistan	36.00	94	Low
Venezuela	16.70	149	Very low
Viet Nam	40.42	74	Medium
Zambia	26.92	121	Low
Zimbabwe	22.86	131	Low

3.3 Socioeconomic Development Index (SDI)

As expected, countries with high multidimensional development are also high in their socioeconomic development (Figure 3.5). The top three countries with high socioeconomic development are Denmark, Switzerland, and Singapore. Most of the bottom 10 countries with very low socioeconomic development status are also from SSA region (Figure 3.6).

Figure 3.5: Top 10 countries with high socioeconomic development
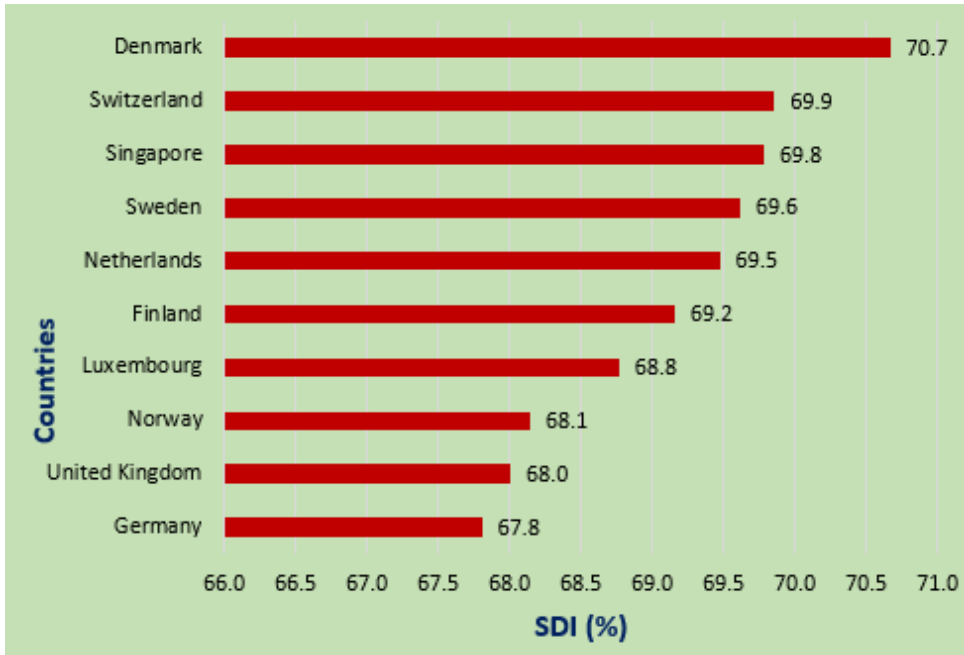
Figure 3.6: Bottom 10 countries with very low socioeconomic development
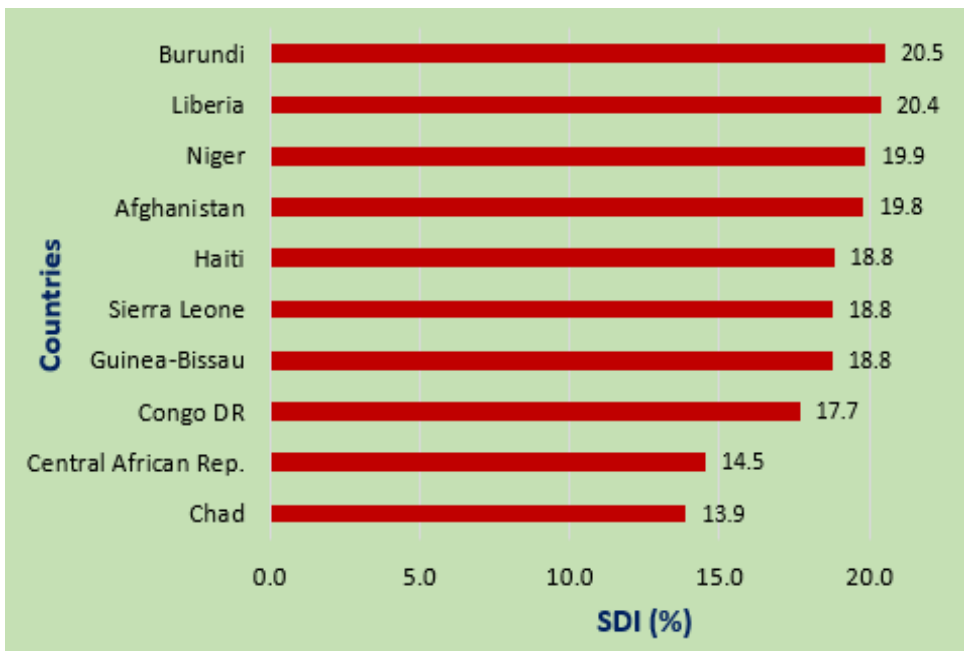
The majority of the 153 ranked countries around the world achieved moderate (36.6%) and high (20.3%) state of socioeconomic development in 2021 (Figure 3.7). However, significant proportion (43.1%) of them experienced low and very low state of socioeconomic development.

Figure 3.7: Distribution of countries by socioeconomic development status
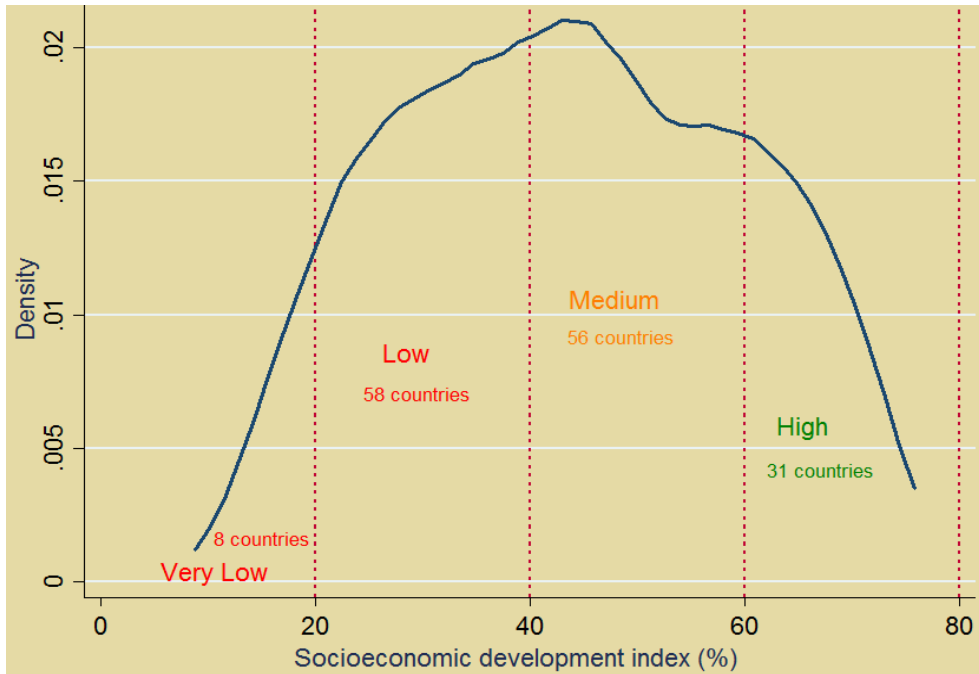
Table 3.2: Ranking countries with socioeconomic development

Country/ Economy	SDI (%)	Rank	Status
Afghanistan	19.81	147	Very low
Albania	48.59	61	Medium
Algeria	35.92	103	Low
Angola	21.82	141	Low
Argentina	45.00	70	Medium
Armenia	49.44	57	Medium
Australia	64.94	17	High
Austria	66.45	11	High
Azerbaijan	47.61	65	Medium
Bahrain	55.95	38	Medium

Country/ Economy	SDI (%)	Rank	Status
Bangladesh	31.04	115	Low
Belarus	52.33	47	Medium
Belgium	65.13	16	High
Belize	39.15	91	Low
Benin	25.52	129	Low
Bolivia	35.80	104	Low
Bosnia and Herzegovina	47.88	64	Medium
Botswana	40.00	88	Medium
Brazil	44.05	74	Medium
Bulgaria	53.46	43	Medium
Burkina Faso	22.04	139	Low
Burundi	20.51	144	Low
Cabo Verde	36.81	98	Low
Cambodia	32.44	111	Low
Cameroon	25.88	127	Low
Canada	64.03	21	High
Central African Rep.	14.52	152	Very low
Chad	13.88	153	Very low
Chile	56.98	37	Medium
China	53.02	45	Medium
Colombia	43.43	76	Medium
Congo	23.83	133	Low
Congo DR	17.67	151	Very low
Costa Rica	51.33	51	Medium
Cote d'Ivoire	29.12	121	Low
Croatia	57.99	35	Medium
Cuba	40.71	84	Medium
Cyprus	59.79	32	Medium
Czechia	61.98	28	High
Denmark	70.67	1	High
Dominican Republic	43.46	75	Medium
Ecuador	41.48	82	Medium
Egypt	39.92	89	Low
El Salvador	41.11	83	Medium
Estonia	64.60	19	High
Eswatini	31.32	114	Low

Country/ Economy	SDI (%)	Rank	Status
Ethiopia	24.11	132	Low
Finland	69.16	6	High
France	64.77	18	High
Gabon	31.43	113	Low
Gambia	27.25	124	Low
Georgia	48.47	62	Medium
Germany	67.80	20	High
Ghana	32.44	112	Low
Greece	55.82	40	Medium
Guatemala	36.16	102	Low
Guinea	22.83	136	Low
Guinea-Bissau	18.75	150	Very low
Guyana	38.07	96	Low
Haiti	18.81	147	Very low
Honduras	36.30	100	Low
Hungary	55.66	41	Medium
Iceland	66.34	12	High
India	36.20	101	Low
Indonesia	41.81	81	Medium
Iran	36.35	99	Low
Iraq	32.46	110	Low
Ireland	65.53	14	High
Israel	63.10	25	High
Italy	61.48	30	High
Jamaica	45.58	69	Medium
Japan	66.08	13	High
Jordan	44.22	72	Medium
Kazakhstan	51.27	52	Medium
Kenya	33.02	108	Low
Kuwait	50.72	55	Medium
Kyrgyzstan	39.46	90	Low
Lao PDR	32.52	109	Low
Latvia	59.29	33	Medium
Lebanon	38.71	93	Low
Lesotho	25.31	130	Low
Liberia	20.36	145	Low

Country/ Economy	SDI (%)	Rank	Status
Lithuania	60.15	31	High
Luxembourg	68.76	7	High
Madagascar	22.02	140	Low
Malawi	25.83	128	Low
Malaysia	54.70	42	Medium
Mali	21.80	142	Low
Malta	62.92	26	High
Mauritania	22.06	138	Low
Mauritius	50.74	54	Medium
Mexico	48.85	60	Medium
Moldova	47.07	66	Medium
Mongolia	38.44	94	Low
Montenegro	53.17	44	Medium
Morocco	42.03	80	Medium
Mozambique	21.00	143	Low
Myanmar	26.02	126	Low
Namibia	36.98	97	Low
Nepal	30.27	116	Low
Netherlands	69.47	5	High
New Zealand	65.30	15	High
Nicaragua	35.76	105	Low
Niger	19.88	146	Very low
Nigeria	23.65	135	Low
North Macedonia	51.53	50	Medium
Norway	68.14	8	High
Oman	48.46	63	Medium
Pakistan	29.81	118	Low
Papua New Guinea	23.78	134	Low
Paraguay	40.36	86	Medium
Peru	44.28	71	Medium
Philippines	40.63	85	Medium
Poland	58.86	34	Medium
Portugal	61.67	29	High
Qatar	55.84	39	Medium
Romania	52.99	46	Medium
Russia	50.52	56	Medium

Country/ Economy	SDI (%)	Rank	Status
Rwanda	35.58	106	Low
Sao Tome and Principe	33.60	107	Low
Saudi Arabia	51.75	49	Medium
Senegal	30.19	117	Low
Serbia	52.04	48	Medium
Sierra Leone	18.76	149	Very low
Singapore	69.78	3	High
Slovakia	57.89	36	Medium
Slovenia	63.18	24	High
South Korea	63.63	22	High
Spain	63.35	23	High
Sri Lanka	40.30	87	Medium
Sudan	22.64	137	Low
Suriname	39.03	92	Low
Sweden	69.61	4	High
Switzerland	69.86	2	High
Tajikistan	38.20	95	Low
Tanzania	28.97	122	Low
Thailand	49.14	58	Medium
Togo	24.66	131	Low
Trinidad and Tobago	46.65	68	Medium
Tunisia	44.18	73	Medium
Turkey	49.13	59	Medium
Turkmenistan	42.73	78	Medium
Uganda	29.18	120	Low
Ukraine	47.06	67	Medium
United Arab Emirates	62.28	27	High
United Kingdom	68.00	9	High
United States	64.17	20	High
Uruguay	51.03	53	Medium
Uzbekistan	42.29	79	Medium
Venezuela	29.36	119	Low
Viet Nam	43.19	77	Medium
Zambia	27.26	123	Low
Zimbabwe	26.80	125	Low

3.4 Governance Status Index (GSI)

The top 10 three countries of the world with good governance are Finland, Norway, and Denmark (Figure 3.8). Similarly, Central African Republic, Congo Democratic Republic and Libya are the bottom three African countries with very weak governance (Figure 3.9).

Figure 3.8: Top 10 countries with good governance
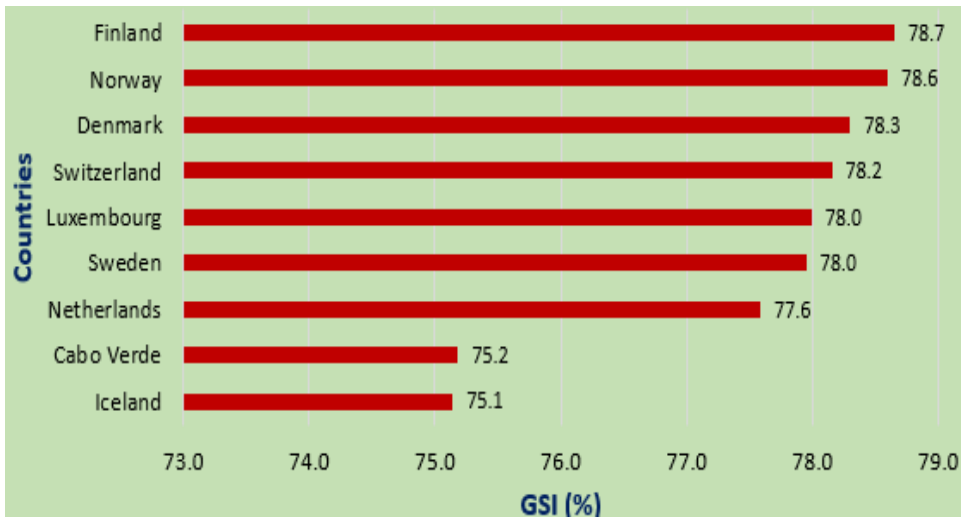
Figure 3.9: Bottom 10 countries with very weak governance
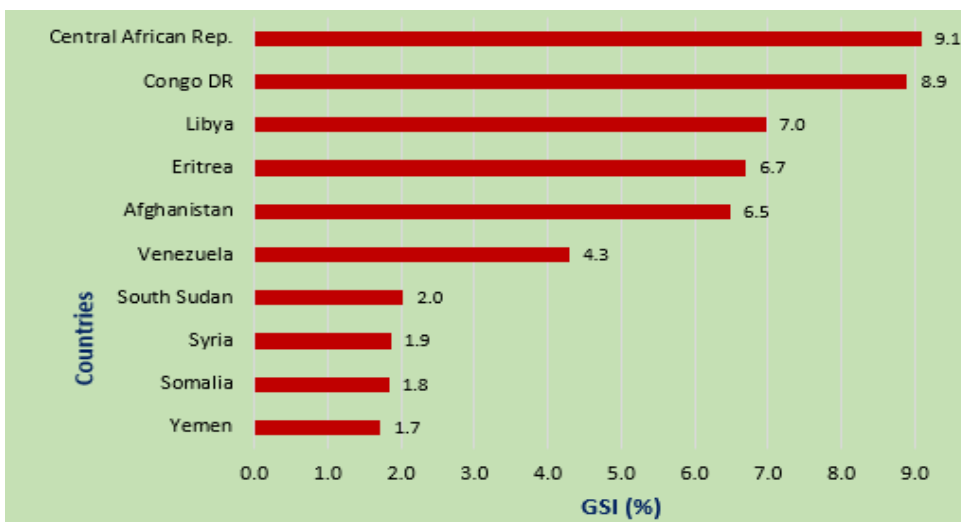
Out of 179 countries ranked, majority of them (55.9%) in the world experience weak and very weak governance (Figure 3.10). Only 100 countries have achieved moderate (26.3%) and good (17.9%) governance.

Figure 3.10: Distribution of countries by governance status
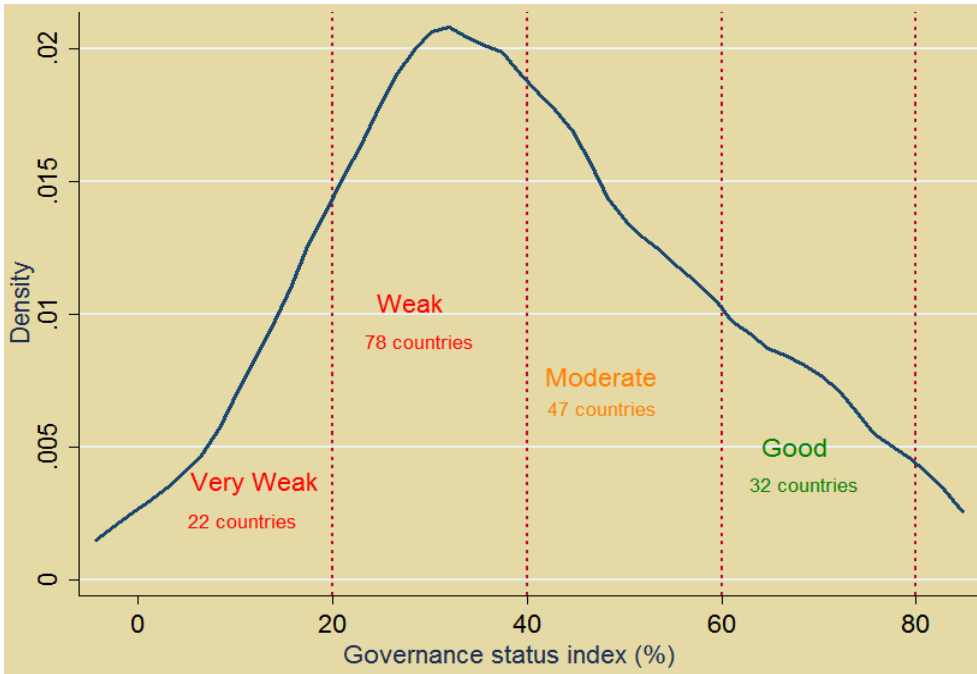
Table 3.3: Ranking countries with governance status

Country/ Economy	GSI (%)	Rank	Status
Afghanistan	6.48	174	Very weak
Albania	42.35	69	Moderate
Algeria	23.62	140	Weak
Angola	21.54	148	Weak
Antigua and Barbuda	49.17	54	Moderate
Argentina	43.35	66	Moderate
Armenia	37.90	89	Weak
Australia	74.63	12	Good
Austria	70.58	17	Good
Azerbaijan	27.15	129	Weak

Country/ Economy	GSI (%)	Rank	Status
Bahamas	49.51	53	Moderate
Bahrain	38.78	83	Weak
Bangladesh	22.08	143	Weak
Barbados	57.23	36	Moderate
Belarus	21.11	150	Weak
Belgium	62.89	22	Good
Belize	41.42	73	Moderate
Benin	36.99	94	Weak
Bhutan	51.13	50	Moderate
Bolivia	29.71	118	Weak
Bosnia and Herzegovina	36.95	95	Weak
Botswana	49.09	55	Moderate
Brazil	40.09	79	Moderate
Brunei Darussalam	52.95	46	Moderate
Bulgaria	43.35	65	Moderate
Burkina Faso	29.03	120	Weak
Burundi	20.45	153	Weak
Cabo Verde	75.18	8	Good
Cambodia	29.21	119	Weak
Cameroon	20.44	154	Weak
Canada	74.64	11	Good
Central African Rep.	9.08	170	Very weak
Chad	19.28	158	Very weak
Chile	58.13	34	Moderate
China	38.02	86	Weak
Colombia	36.62	98	Weak
Comoros	21.89	145	Weak
Congo	17.55	160	Very weak
Congo DR	8.90	171	Very weak
Costa Rica	50.84	51	Moderate
Cote d'Ivoire	28.05	124	Weak
Croatia	56.86	37	Moderate
Cuba	35.55	100	Weak
Cyprus	56.33	38	Moderate

Country/ Economy	GSI (%)	Rank	Status
Czechia	61.77	29	Good
Denmark	78.30	3	Good
Djibouti	22.43	142	Weak
Dominican Republic	41.58	72	Moderate
Ecuador	37.24	91	Weak
Egypt	25.85	136	Weak
El Salvador	37.15	93	Weak
Equatorial Guinea	18.47	159	Very weak
Eritrea	6.70	173	Very weak
Estonia	65.21	19	Good
Eswatini	25.42	138	Weak
Ethiopia	17.20	163	Very weak
Fiji	47.35	58	Moderate
Finland	78.65	1	Good
France	59.69	33	Moderate
Gabon	27.45	127	Weak
Gambia	32.45	113	Weak
Georgia	47.52	57	Moderate
Germany	70.69	16	Good
Ghana	41.69	70	Moderate
Greece	46.22	63	Moderate
Grenada	52.51	48	Moderate
Guatemala	32.57	112	Weak
Guinea	20.41	155	Weak
Guinea-Bissau	27.41	128	Weak
Guyana	37.93	88	Weak
Haiti	16.86	164	Very weak
Honduras	22.84	141	Weak
Hungary	53.45	44	Moderate
Iceland	75.14	9	Good
India	36.93	96	Weak
Indonesia	38.19	85	Weak
Iran	15.68	165	Very weak
Iraq	14.07	167	Very weak

Country/ Economy	GSI (%)	Rank	Status
Ireland	74.58	13	Good
Israel	55.27	39	Moderate
Italy	53.94	43	Moderate
Jamaica	45.32	64	Moderate
Japan	66.23	18	Good
Jordan	36.69	97	Weak
Kazakhstan	38.79	82	Weak
Kenya	35.28	101	Weak
Kuwait	39.91	80	Weak
Kyrgyzstan	26.24	131	Weak
Lao PDR	26.03	134	Weak
Latvia	61.14	31	Good
Lebanon	21.54	147	Weak
Lesotho	32.81	109	Weak
Liberia	27.74	126	Weak
Libya	6.97	172	Very weak
Lithuania	61.85	27	Good
Luxembourg	77.99	5	Good
Madagascar	26.09	133	Weak
Malawi	32.09	115	Weak
Malaysia	53.13	45	Moderate
Maldives	40.73	77	Moderate
Mali	17.52	161	Very weak
Malta	62.19	25	Good
Mauritania	21.53	149	Weak
Mauritius	61.93	26	Good
Mexico	34.38	105	Weak
Micronesia	46.94	60	Moderate
Moldova	41.27	74	Moderate
Mongolia	46.25	62	Moderate
Montenegro	42.42	68	Moderate
Morocco	37.40	90	Weak
Mozambique	20.88	151	Weak
Myanmar	14.63	166	Very weak

Country/ Economy	GSI (%)	Rank	Status
Namibia	47.90	56	Moderate
Nepal	32.23	114	Weak
Netherlands	77.59	7	Good
New Zealand	74.82	10	Good
Nicaragua	26.15	132	Weak
Niger	24.37	139	Weak
Nigeria	17.33	162	Very weak
North Korea	10.64	169	Very weak
North Macedonia	41.61	71	Moderate
Norway	78.60	2	Good
Oman	43.24	67	Moderate
Pakistan	21.87	146	Weak
Palestine	72.25	14	Good
Panama	47.01	59	Moderate
Papua New Guinea	25.90	135	Weak
Paraguay	34.32	106	Weak
Peru	37.18	92	Weak
Philippines	32.70	110	Weak
Poland	54.23	42	Moderate
Portugal	63.46	20	Good
Qatar	54.59	41	Moderate
Romania	49.70	52	Moderate
Russia	27.15	130	Weak
Rwanda	35.58	99	Weak
Samoa	51.42	49	Moderate
Sao Tome and Principe	33.17	108	Weak
Saudi Arabia	31.38	116	Weak
Senegal	40.41	78	Moderate
Serbia	41.22	75	Moderate
Seychelles	52.52	47	Moderate
Sierra Leone	28.56	122	Weak
Singapore	70.72	15	Good
Slovakia	61.81	28	Good
Slovenia	63.27	21	Good

Country/ Economy	GSI (%)	Rank	Status
Solomon Islands	32.62	111	Weak
Somalia	1.83	178	Very weak
South Africa	41.14	76	Moderate
South Korea	62.69	23	Good
South Sudan	2.03	176	Very weak
Spain	61.03	32	Good
Sri Lanka	39.45	81	Weak
Sudan	12.83	168	Very weak
Suriname	35.01	102	Weak
Sweden	77.95	6	Good
Switzerland	78.15	4	Good
Syria	1.85	177	Very weak
Tajikistan	20.15	157	Weak
Tanzania	25.85	137	Weak
Thailand	34.48	103	Weak
Timor-Leste	28.90	121	Weak
Togo	22.07	144	Weak
Trinidad and Tobago	46.44	61	Moderate
Tunisia	37.98	87	Weak
Turkey	33.30	107	Weak
Turkmenistan	20.61	152	Weak
Uganda	27.98	125	Weak
Ukraine	34.40	104	Weak
United Arab Emirates	55.10	40	Moderate
United Kingdom	61.48	30	Good
United States	58.06	35	Moderate
Uruguay	62.23	24	Good
Uzbekistan	30.37	117	Weak
Venezuela	4.29	175	Very weak
Viet Nam	38.51	84	Weak
Yemen	1.72	179	Very weak
Zambia	28.36	123	Weak
Zimbabwe	20.18	156	Weak

3.5 World Average Performance

The average development performance of the world in 2021 is mainly attributable to high human development and living conditions (Figure 3.11). Achievement of many pillars of multidimensional development is at medium and moderate status (varying from 40% to 70%). This average performance is significantly affected by weak governance prevailed around the world.

Figure 3.11: World average performance of multidimensional development
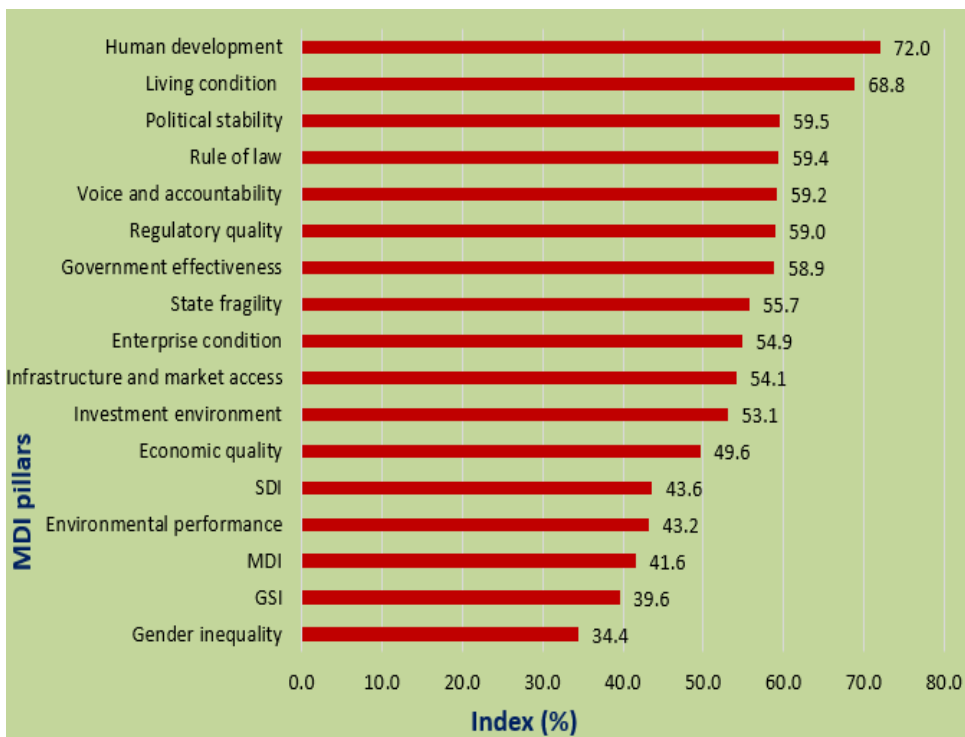
The two dimensions of the MDI, socioeconomic development and governance, have strongly linear complementarity (with correlation coefficient of 87.0 percent). The intuition behind the MDI, that development is multidimensional, is demonstrated by their strong correlation (Figure 3.12). Socioeconomic development and governance reinforce each other and enable to view the true picture of the state of multidimensional development of nations around the world.

Figure 3.12: Socioeconomic development and governance are strongly complementary

Note: Correlation coefficient is computed between SDI and log-normalized GSI.

The comparison of mean MDI of the seven regions visualized the gap or the deviation from the world average MDI (41.56%). North America (NA), Europe and Central Asia (ECA), and East Asia and the Pacific (EAP) are above the world avenge (Figure 3.13). The other four regions fall below the world average, the SSA being the region with the largest gap.

Figure 3.13: Mean comparison of regional MDI
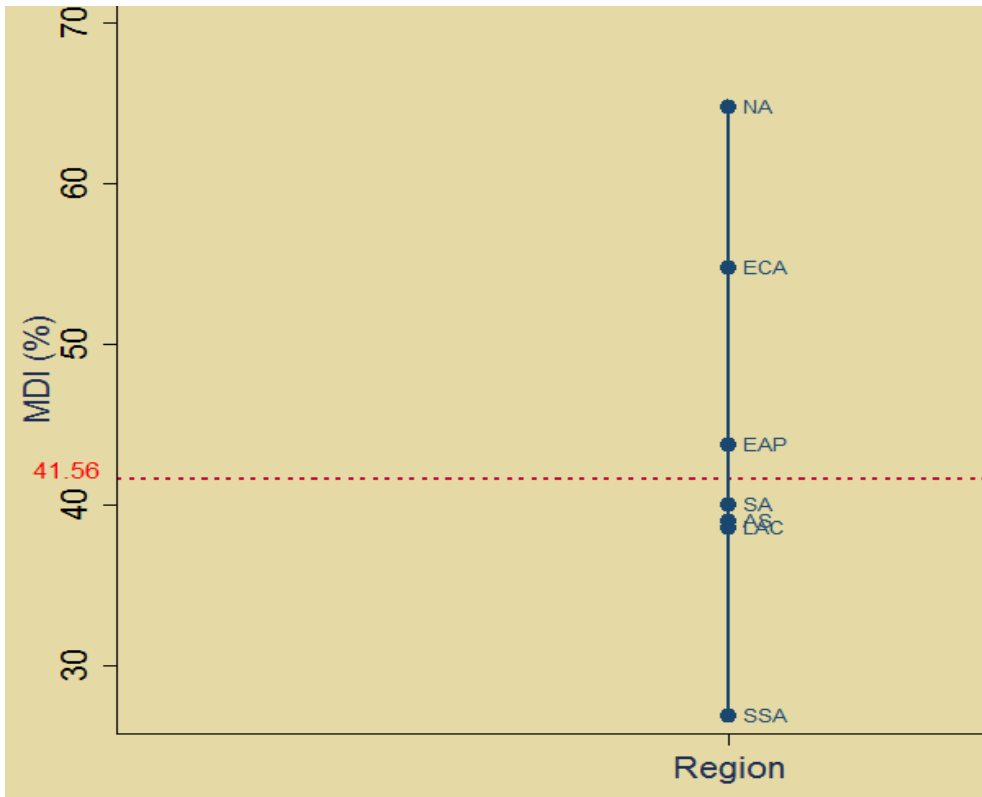
3.6 Development Gains and Losses

The development gains and losses arising from each pillar are estimated using regression-based decomposition method (Figure 3.14). Government effectiveness (16.6%), regulatory quality (15.8%), rule of law (15.6%), living conditions (13.3%), and infrastructure and market access (13.1%) are the top five pillars contributing more to multidimensional development gains. Development losses arising from state fragility (-15.3%) and gender inequality (-14.3%) substantially erode development achievements realized of nations in 2021.

The results clearly show that global multidimensional development is more strongly affected by governance factors. Governance factors contribute 53.6 percent net development gains, whereas socioeconomic factors produce net development gains of 46.4 percent.

Figure 3.14: Global development gains and losses
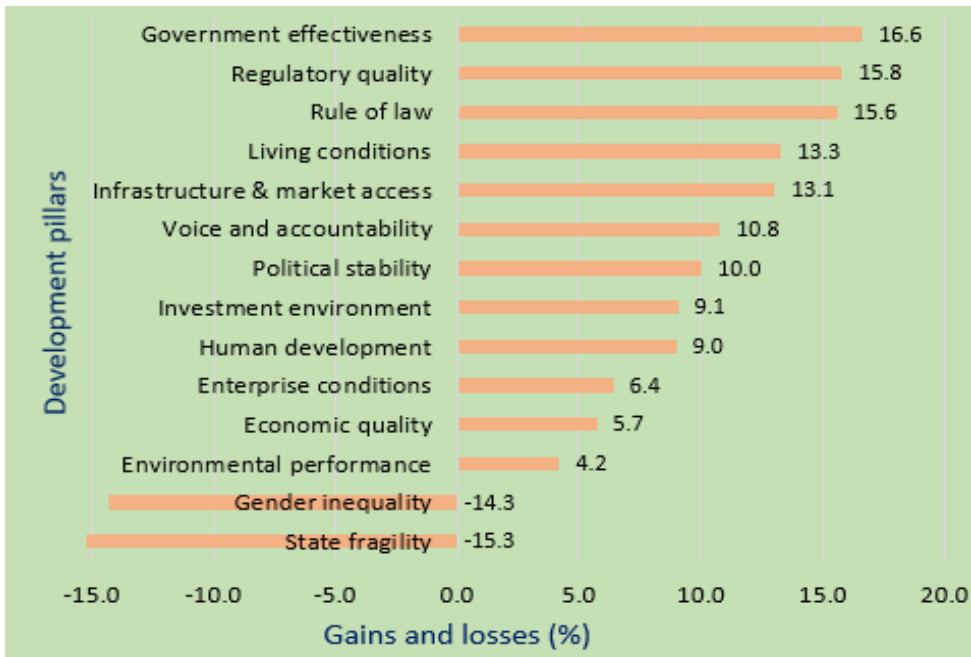
The link between multidimensional development and state fragility is strongly negative. In 2021, the total development loss experienced by nations around the world is 29.6 percent. The relative development loss arising from state fragility is exceptionally high. Around 15.3 percent of development achievements are lost due to state fragility caused by economic, social, and political fragility, as well as external intervention

The link between multidimensional development and gender inequality is strongly negative. The relative development loss arising from gender inequality is similarly very high. Gender gap between men and women in reproductive health, empowerment, and labor market participation causes a loss of 14.3 percent of global development achievements. Countries with high gender inequality experience huge loss of their development achievements.

3.7 Alignment with Development Goals

The progress of the 17 Sustainable Development Goals (SDGs), also known as Agenda 2030, is measured by the SDG progress index. The overall SDGs score

(67.2%) measures the total progress towards achieving all the 17 SDGs. The percentage of SDG achievement in 2022 shows that responsible consumption and production (SDG12) and climate action (SDG13) have very high achievements (Figure 3.15).

Figure 3.15: Progress of SDG achievements (2022)
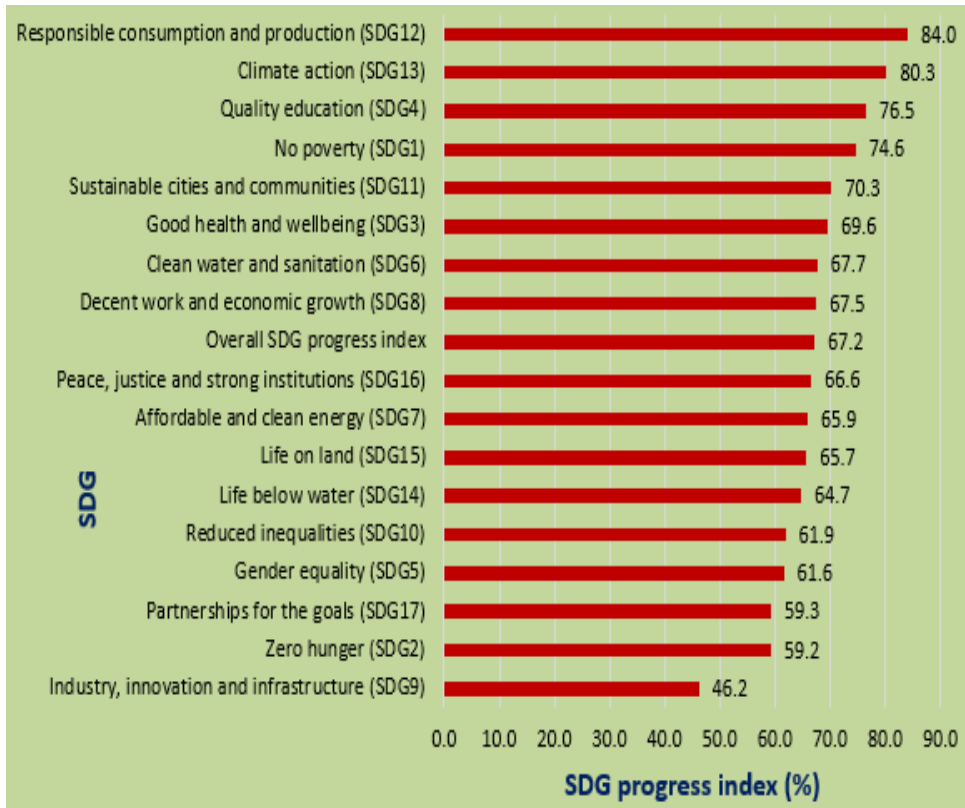
Development measures are generally expected to gauge the achievement of the multiple development objectives such as the SDGs. The alignment of the MDI measures with the 17 SDGs is verified by measuring the link between MDI and the SDG progress index (Figure 3.16). The MDI is very strongly aligned with the SDG achievements as demonstrated by the correlation coefficient (89.2%) between the SDG progress index and the log-normalized MDI. The result verifies that the MDI is a relevant measure of achievement of multiple objectives of Agenda 2030.

Figure 3.16: Strong positive correlation between MDI and SDG achievements
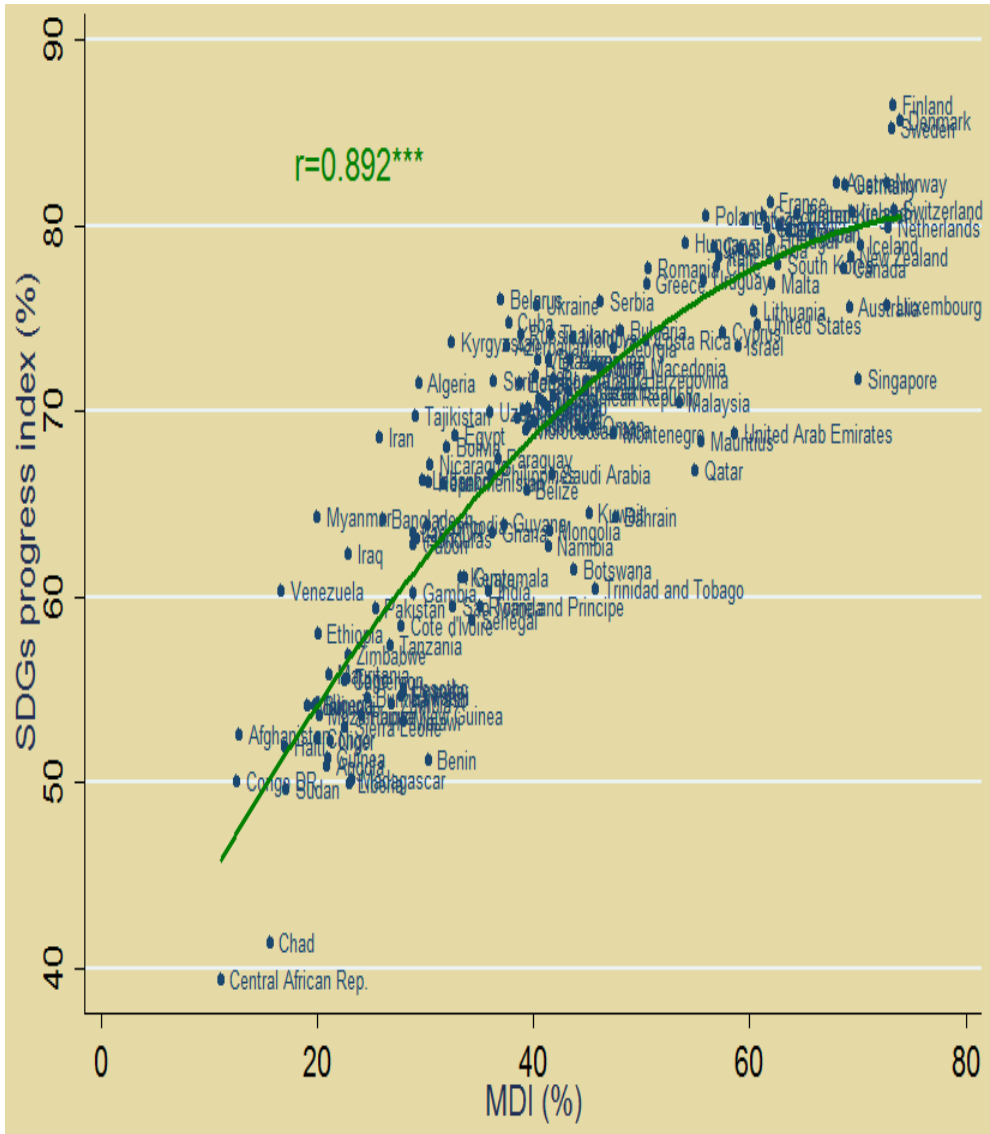
Estimation of the alignment of the SDI with SDGs also verifies that socioeconomic development is strongly aligned with the SDG achievement with correlation coefficient of 97.3 percent (Figure 3.17). The socioeconomic dimension of the MDI is a relevant measure very strongly aligned with the SDG achievements.

Figure 3.17: The SDI is very strongly aligned with the SDG achievements
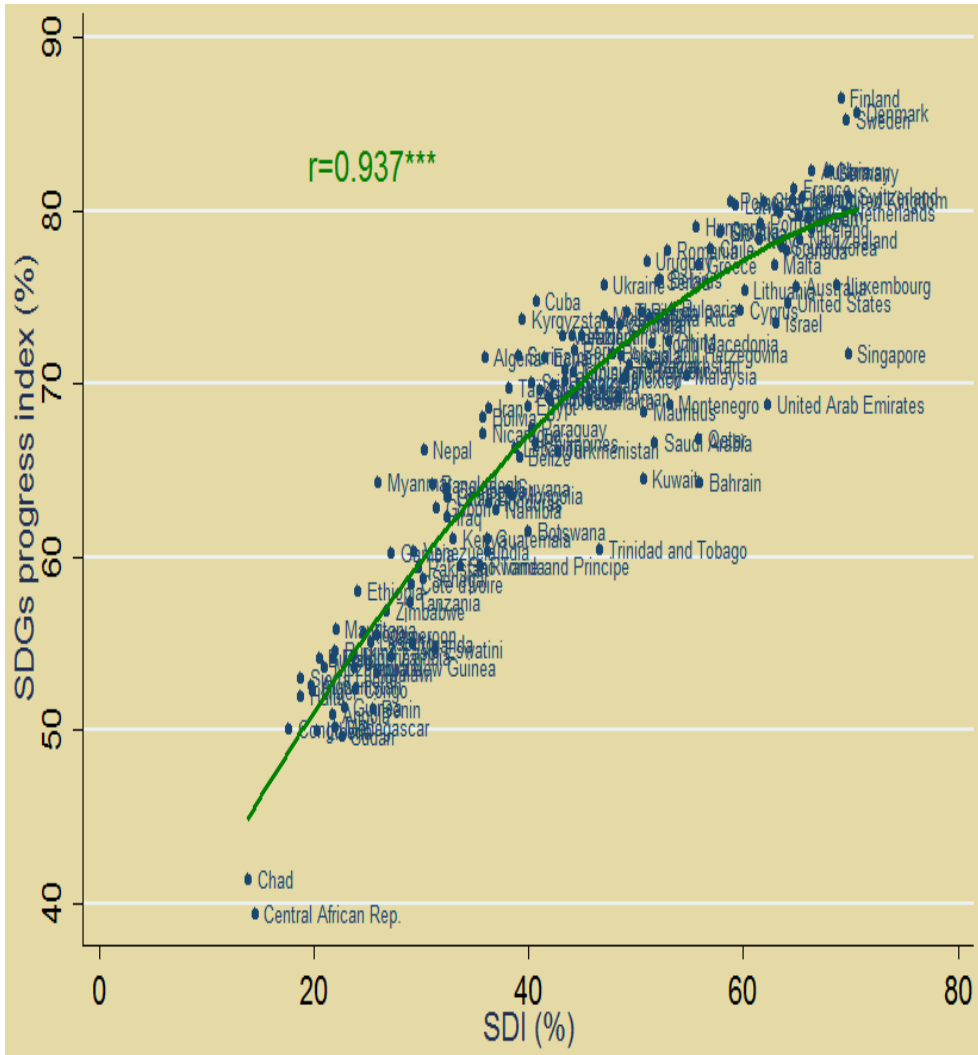
The governance dimension of the MDI is also strongly aligned with the SDG achievements (Figure 3.18). The correlation coefficient between the SDG progress index and the GSI is 79.2 percent.

Figure 3.18: The GSI is straggly aligned with SDG achievements
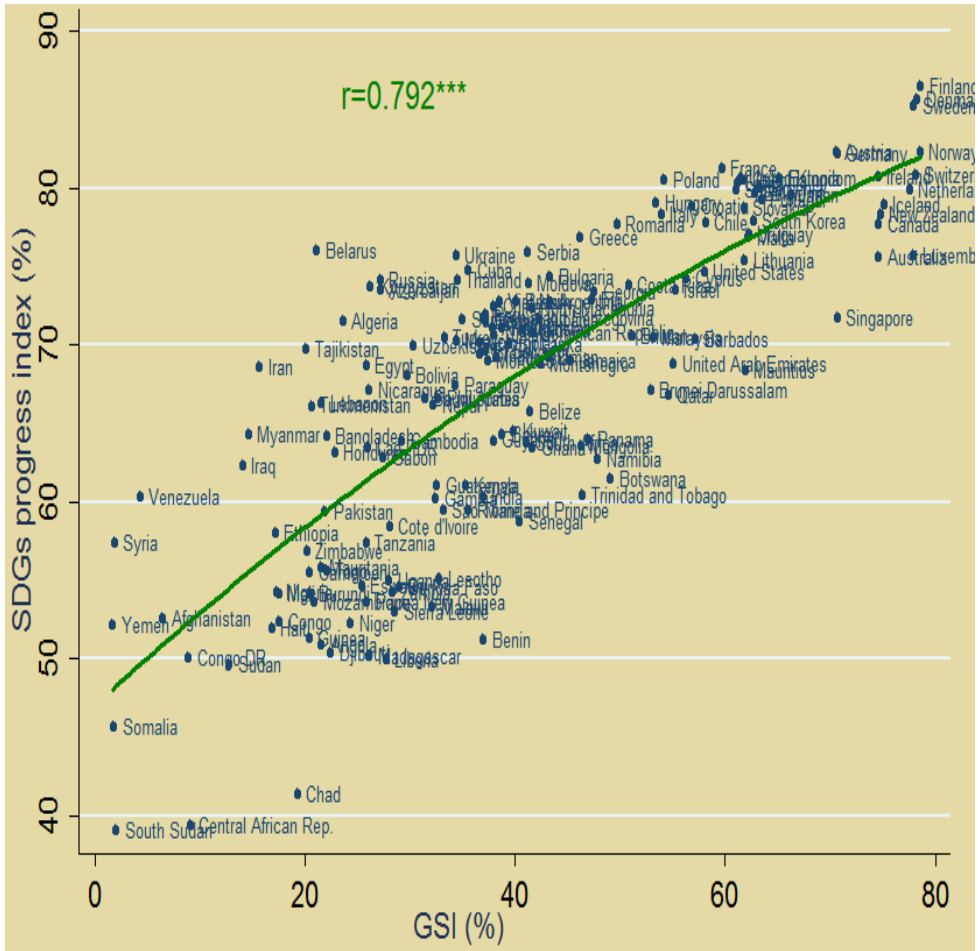
3.8 Development Gaps

The world has realized medium multidimensional (41.6%), medium socioeconomic development (43.6%), and weak governance status (39.6%) in 2021 (Table 3.4). The seven regions of the world can be categorized into three by their status of multiterminal development as those with high development (NA), medium development (ECA and EAP), and low development (SA, AS, LAC, and SSA). NA ECA, and EAP are the top three regions with high and medium multidimensional development. Sub-Saharan Africa is the bottom region with low multidimensional development.

Table 3.4: State of multidimensional development across regions of the world

Region	MDI	SDI	GSI	MDI Status	MDI rank
NA	64.8	64.1	66.4	High	1st
ECA	54.8	57.5	52.9	Medium	2nd
EAP	43.7	46.0	41.2	Medium	3rd
SA	40.0	42.0	40.2	Low	4th
AS	39.0	44.7	29.0	Low	5th
LAC	38.5	41.4	39.4	Low	6th
SSA	26.8	26.4	28.2	Low	7th
World	41.56	43.63	39.56	Medium	
	Medium	Medium	Low		

Based on the world average performance of socioeconomic development (43.63%) and governance (39.56%), the development gaps for each country are computed. The link between socioeconomic and governance gaps clearly shows that gaps in governance strongly and increasingly aggravate gaps in socioeconomic development (Figure 3.19). As depicted, countries and economies with good performance in both measures are plotted in Quadrant III and those with poor performance in Quadrant I. Countries with good or poor performance in either of the measures are plotted in either of Quadrant I or Quadrant IV, where most countries are worse off in their governance status.

Figure 3.19: The association between socioeconomic and governance gaps
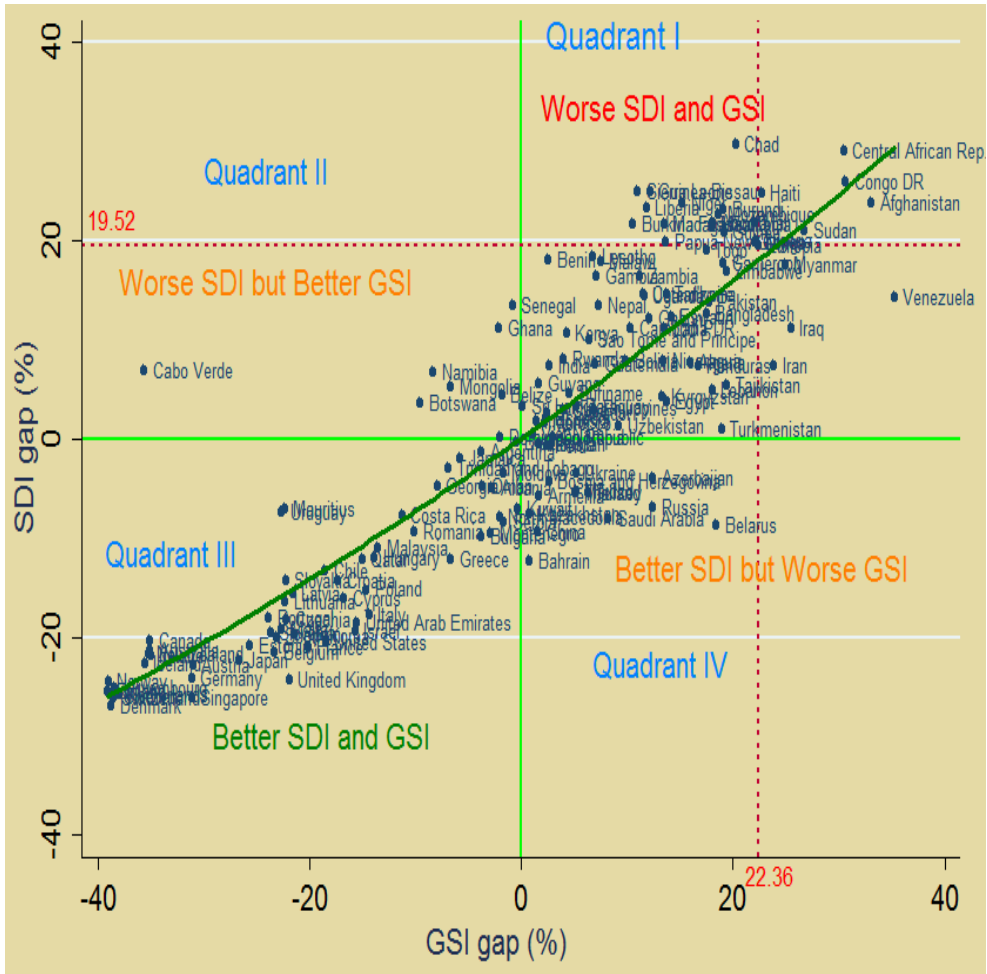
Out of 153 countries ranked, 86 (56.2%) are multidimensionally worse-off with MDI below the world average (41.56%). 179 countries are ranked with their GSI. The socioeconomic development and governance performance of 83 countries is below the world average, which is substantially higher than those 58 countries with good performance in both measures (Figure 3.20). The interdependence between outcomes of socioeconomic and governance policies strongly suggests the need to give due focus to both policy measures of a country.

Figure 3.20: Number of countries by state of development gaps
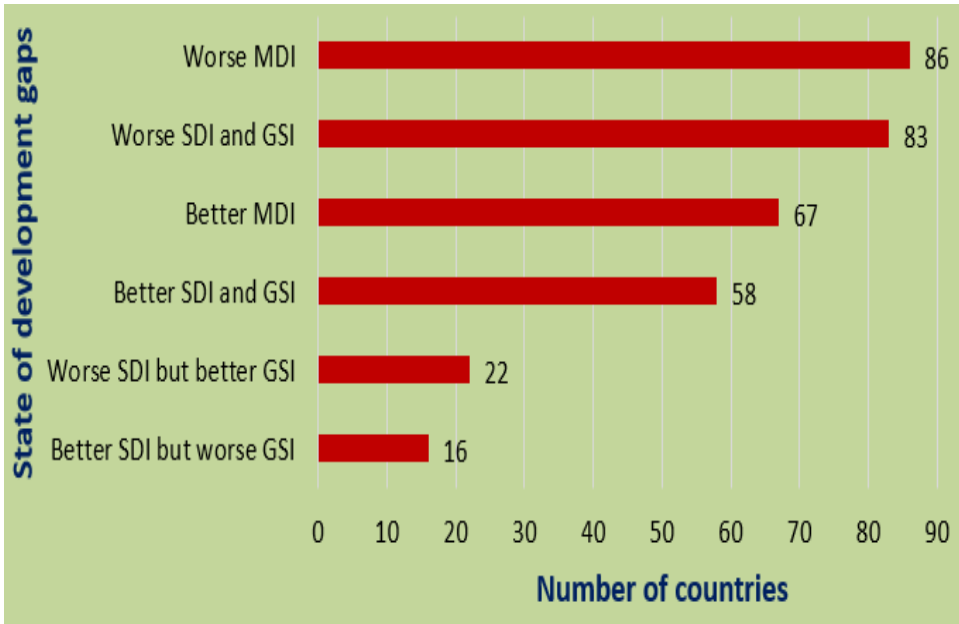
4. DETERMINANTS OF DEVELOPMENT

There are a number of exogenous factors determining multidimensional development of nations. These factors are mainly determined exogenously beyond the control of individual countries. Nations are expected to assess and measure the costs and benefits of these factors and accordingly manipulate the important pillars of development under their control.

4.1 Population Structure

4.1.1 Ethnic fractionalization

Ethnic fractionalization refers to the number, size, socioeconomic distribution, and geographical location of distinct cultural groups. It is expected to affect multidimensional development of nations. The empirical link between ethnic fractionalization and multidimensional development is nonlinear and increasingly negative (Figure 4.1). Ethnic fractionalization (with linear correlation of -0.57) strongly and adversely affects development of nations around the world.

Figure 4.1: Ethnic fractionalization adversely affects development
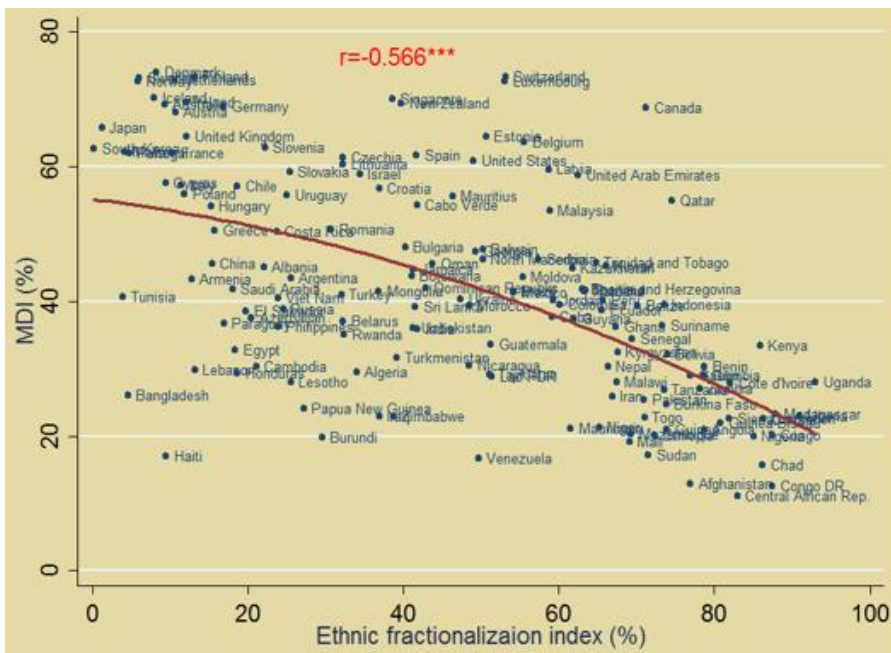
4.1.2 Age dependency

Age dependency ratio is the average number of economically dependent population (people younger than 15 or older than 64) per 100 economically productive population. There is a strong and negative nonlinear link between age dependency and multidimensional development (Figure 4.2). Age dependency (with linear correlation of -0.57) strongly erodes development achievements around the world.

Figure 4.2: Age dependency and development are negatively correlated
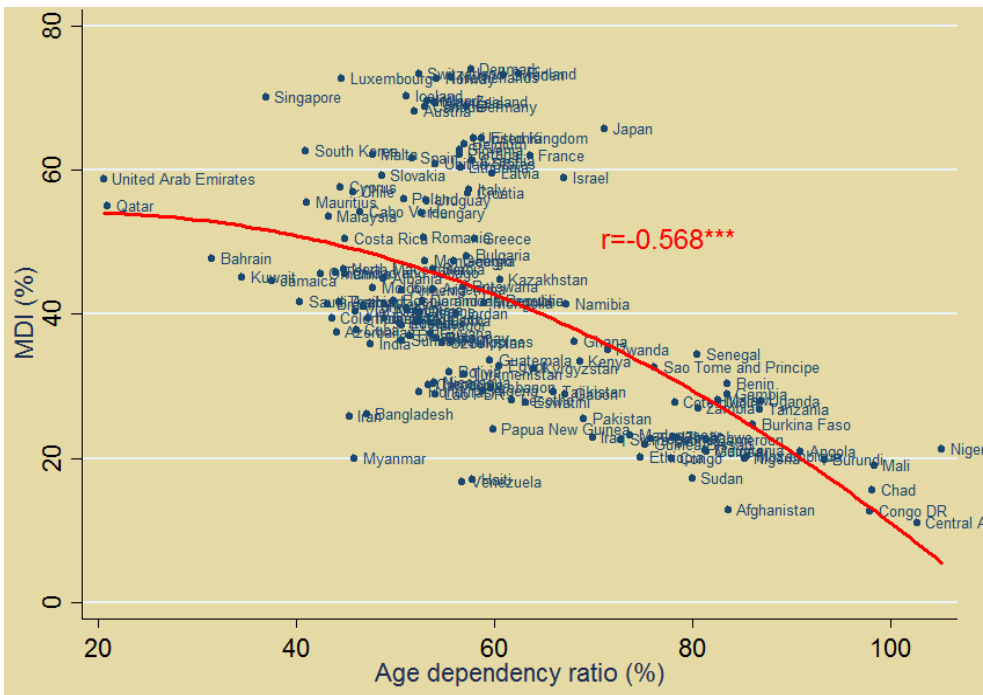
4.2 Land Area

Land area of a country is expected to have different costs and benefits on development. There is no clear-cut perception and conclusive evidence on the costs and benefits of land area on socioeconomic development and governance of a nation. The empirical link between land area and multidimensional development shows the presence of weak and nonlinear negative correlation (with correlation of -0.26)

(Figure 4.3). The costs and benefits of land area may be determined by the amount of resources nations are endowed with.

Figure 4.3: Land area and multidimensional development have nonlinear relationship
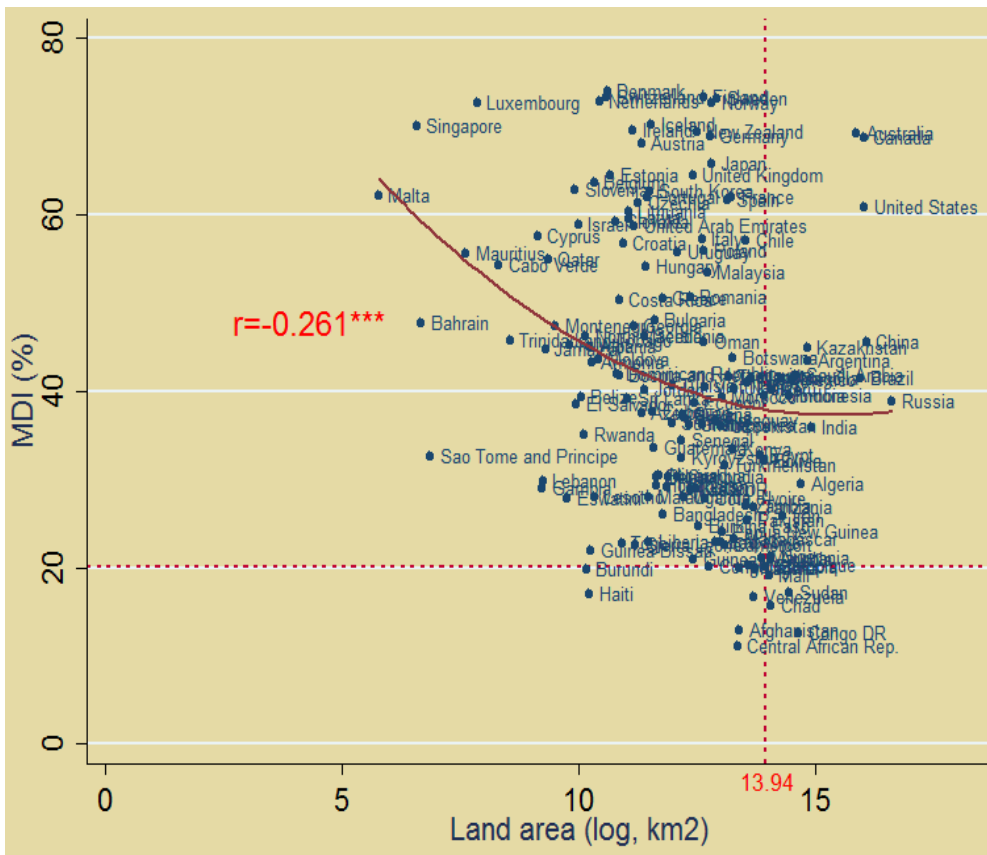
4.3   Religion

Religion is expected to be one of the most important factors determining multidimensional development of nations. The overall link between religion and multidimensional development is strongly negative and nonlinear (with linear correlation of -0.73) (Figure 4.4). The results show that there is a strong tradeoff between religion and development, for the fact that religious (or spiritual) and material goals are different. Material goals are the objectives that can be achieved

through the acquisition of measurable physical possessions or financial assets. The purpose of religious practices, on the other hand, is to achieve the goals of salvation for oneself and others and to render due worship and obedience to God, which are neither tangible nor measurable.

Figure 4.4: The tradeoff between religion and development

The development costs and benefits of religion arise from the economic and religious values perceived by actors of development. Religious persons allocate their resources to realize both spiritual and material goals. Unlike non-religious persons, they have both material and religious objectives for which they allocate their limited resources. Non-religious persons, however, allocate their entire resource for realization of their material objectives. Based on their resource allocation, religious persons may be generally expected to realize different development achievements attributable to their resource allocation.

Comparison of economic and religious values perceived by the two groups of actors verifies why religion matters for development around the world. Religion is an exogenous factor affecting both material and spiritual development. The evidence shows that the net effect of religion on material development is negative and nonlinear. However, its net effect on spiritual development is not measurable, though expected to be positive. Attempts to manipulate this exogenous factor may lead disastrous repercussions on multidimensional development of a country.

4.4 Political Freedom

Political freedom affects multidimensional development through political rights and civil liberties. Political rights exercised by citizens to select their government and civil liberties related to freedom of media, expression, movement, religion, and assembly are expected to affect development. The empirical link between political freedom and multidimensional development is positive and nonlinear (with correlation of 0.45) (Figure 4.5). Countries with high political freedom are more likely to develop.

Figure 4.5: Political freedom significantly and adversely affects development
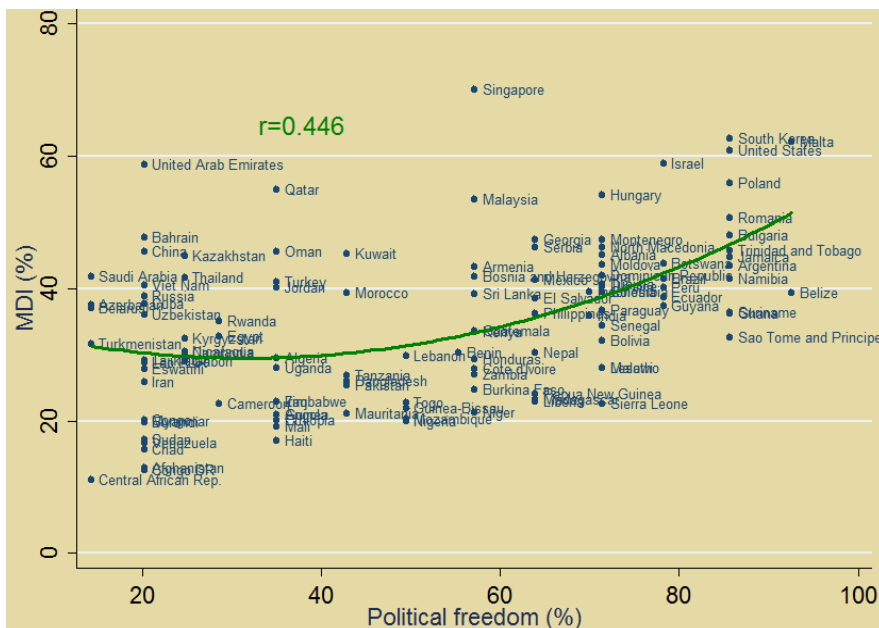
4.5 Military Strength

Military strength, measured by military power index, is expected to positively influence realization of multidimensional development aspired by nations. It is expected to enable nations to defend and protect their socioeconomic development and political agenda from external interventions and aggressions.

The link between military strength and multidimensional development of nations is moderate (with correlation of 0.38) and nonlinear (Figure 4.6). The effect of military strength on development is increasingly positive with diminishing marginal effect with decreasing strength. Military strength allows nations to design and implement their domestic and country-specific development agenda.

Figure 4.6: The positive link between military strength and multidimensional development
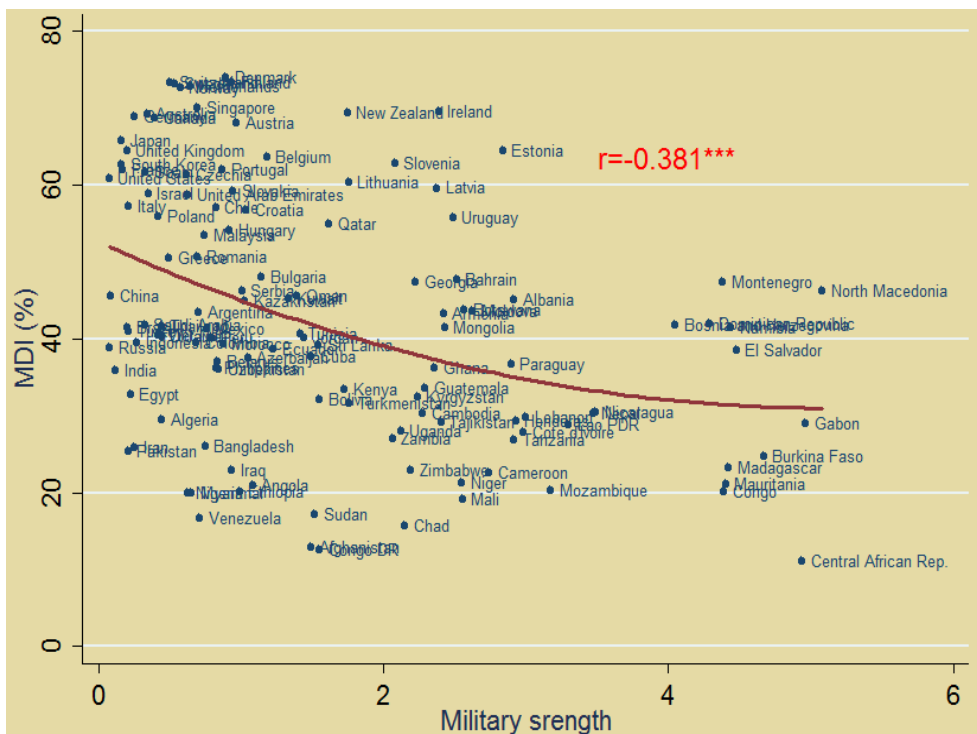
Note: Low index values indicate high military strength.

4.6 Globalization

Globalization measures the extent of connectedness and interdependence of the world in trade, technology, and socioeconomic changes. It is generally expected to positively determine multidimensional development of nations around the world. Globalization and multidimensional development are strongly and positively linked (with correlation of 0.92) (Figure 4.7). Multidimensional development is strongly determined by the interdependence and connectedness of nations with the rest of the world in multiple dimensions. It affects development of nations through economic, social, political, and cultural globalization. Though globalization has several limitations and adverse effects, weakly connected and interdependent countries are expected to lose development opportunities arising from globalization.

Figure 4.7: Globalization strongly determines multidimensional development

4.7 Total Reserves

Total reserves are holdings of monetary gold, special drawing rights, reserves of IMF members held by the IMF, and holdings of foreign exchange under the control of monetary authorities of a nation. The link between total reserves and multidimensional development is positive (with correlation of 0.45) (Figure 4.8). High total reserves are expected to positively affect development of nations. However, the marginal effect of total reserves on multidimensional development diminishes with increasing development, verifying that the development benefits total reserves exhaust for high development.

Figure 4.8: Total reserve affects multidimensional development

4.8 Vulnerability

Vulnerability index is a measure summarizing a country's vulnerability to climate change and other global challenges. It helps development actors better prioritize investments for efficient response to global challenges. Vulnerability of countries to climate change and their multidimensional development are strongly and inversely correlated (with r=-0.83) (Figure 4.9). To realize their multidimensional development goals, countries are required to reduce their vulnerability to climate change and other global challenges.
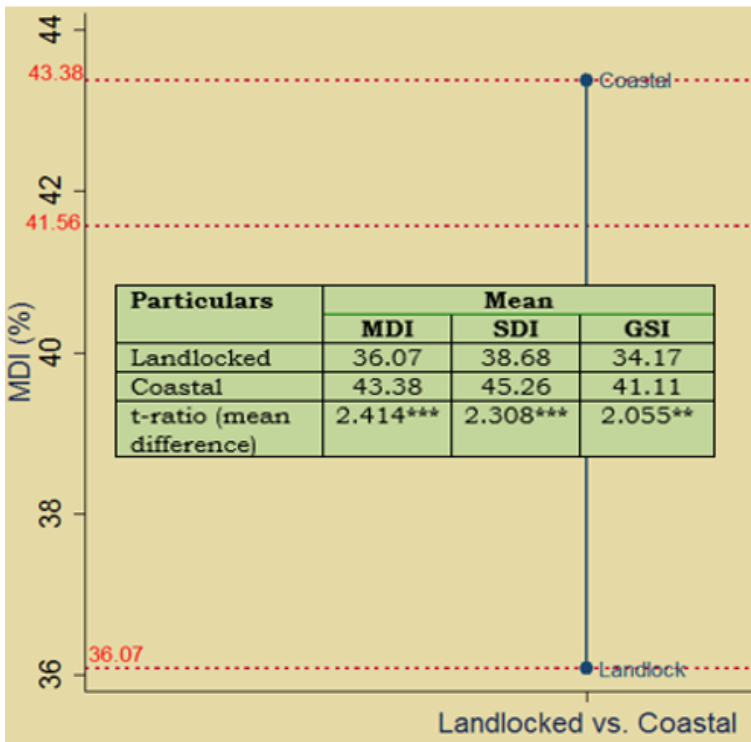
Figure 4.9: Vulnerability to climate change strongly determines development
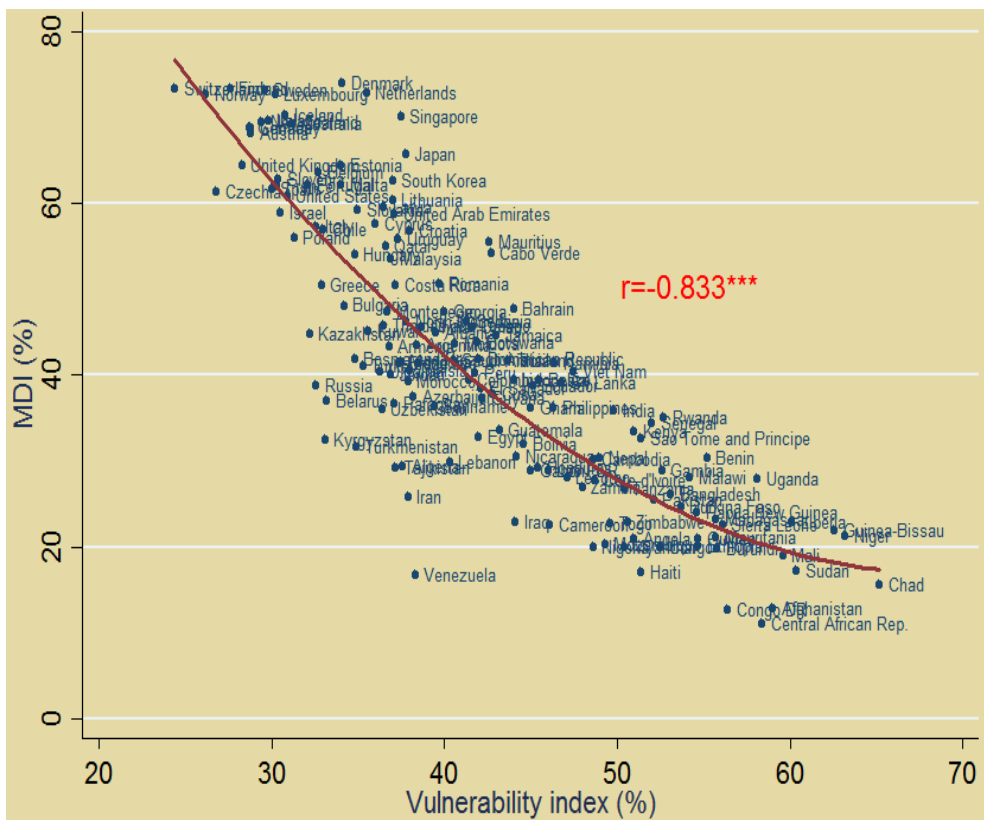
4.9 Landlocked Countries

Landlocked countries are generally assumed to have relatively more limited opportunities of development. To verify this assertion, around 37 landlocked countries around the world are investigated if their multidimensional development is adversely and significantly affected by absence of seaports. The results show that 25 counties (67.6%) have realized low and very low multidimensional development in 2021. The presence of systematic difference between landlocked and coastal countries is verified by their MDI mean comparison test for the two groups of countries (Figure 4.10). The mean MDI for landlocked countries (36.1%) is by far lower than the mean MDI for the world (41.5%) and the coastal countries (43.4%).

Figure 4.10: Landlocked countries are relatively less likely to develop

Particulars	Mean		
	MDI	**SDI**	**GSI**
Landlocked	36.07	38.68	34.17
Coastal	43.38	45.26	41.11
t-ratio (mean difference)	2.414***	2.308***	2.055**

4.10 Model Outputs

To identify the underlying determinants affecting multidimensional development of nations, a linear regression model of multidimensional development (MDI) is estimated using 10 potential factors of which six are statistically significant (Table 4.2). The determinant factors explain 85.9 percent of the variation in multidimensional development among nations around the world. The six variables significantly affecting multidimensional development, in order of importance, are age dependency, land area, globalization, vulnerability to climate change, political freedom, and ethnic fractionalization.

Table 4.1: Determinants of multidimensional development

Determinants	Coefficients	Standard errors	Importance (Rank)
Age dependency	-1.82***	0.054	1st
Land area (log)	-1.16***	0.397	2nd
Globalization	0.45***	0.101	3rd
Vulnerability (%)	-0.22*	0.130	4th
Political freedom	0.10***	0.026	5th
Ethnic fractionalization	-0.05*	0.028	6th
Landlocked (dummy)	1.62	1.545	
Military strength	-0.33	0.634	
Total reserves (log)	0.95	0.626	
Importance of religion	-0.02	0.032	
Constant	15.62	19.604	
Adjusted R2	0.859		

Note: ***, ** and *, respectively, denote 1%, 5%, and 10% significance levels.

5. SPOTLIGHT

A total of eight countries are selected for the spotlight by their multidimensional development status, regional representation, landlocked, and country size (land area, population size, GDP) (Table 5.1).

Table 5.1: Countries selected for spotlight

Country/Region	Region	Selection criteria	MDI	SDI	GSI
China	EAP	Populous & second largest economy	45.6	53.0	38.0
Denmark	ECA	Top MDI	73.9	70.7	78.3
Ethiopia	SSA	Landlocked	20.1	24.1	17.2
India	SA	Second populous	35.9	36.2	36.9
Lebanon	AS	Regional sample	39.8	38.7	21.5
Russia	ECA	Largest land area	38.8	50.5	27.2
United Sates	NA	Largest economy & regional sample	60.8	64.2	58.1
Venezuela	LAC	Very low MDI	16.7	29.4	4.3

5.1 China

China is the most populous country with the second largest economy and the third largest land area in the world. It is ranked 54th with medium multidimensional development index of 45.8 percent. Living conditions, government effectiveness, human development, and gender equality are the top four factors for its current state of multidimensional development (Figure 4.1). Poor environmental performance and very low voice and accountability have substantial adverse effects on China's development.

Table 5.2: The state of multidimensional development in China
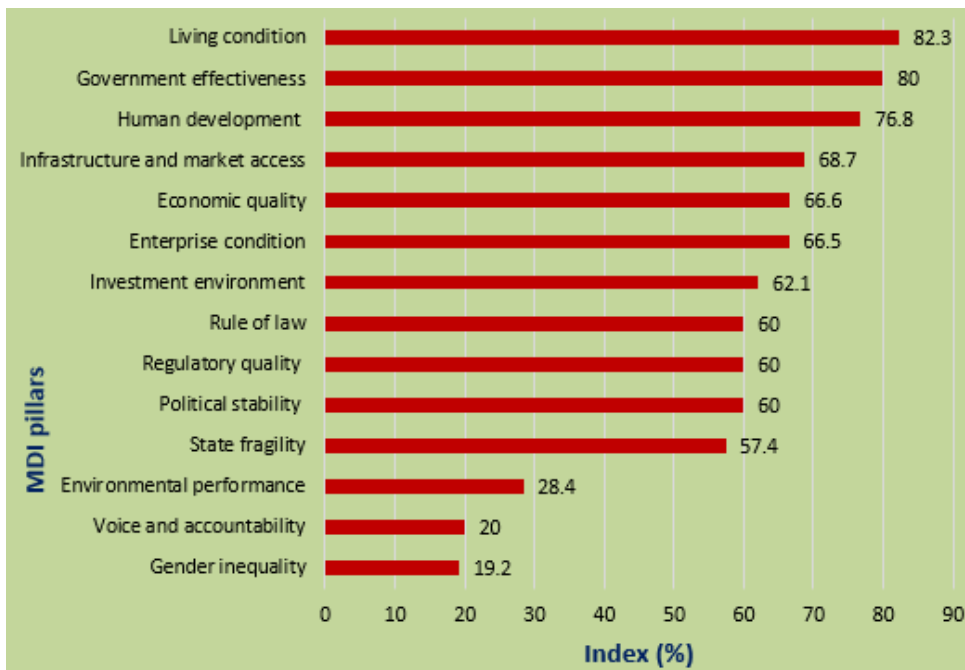
Multidimensional and socioeconomic development of China is above all the regional averages except for North America and Europe (Table 5.2). However, its governance status is far below all the regional averages except for Arab States and the SSA. Governance in China is substantially lower than that of North America.
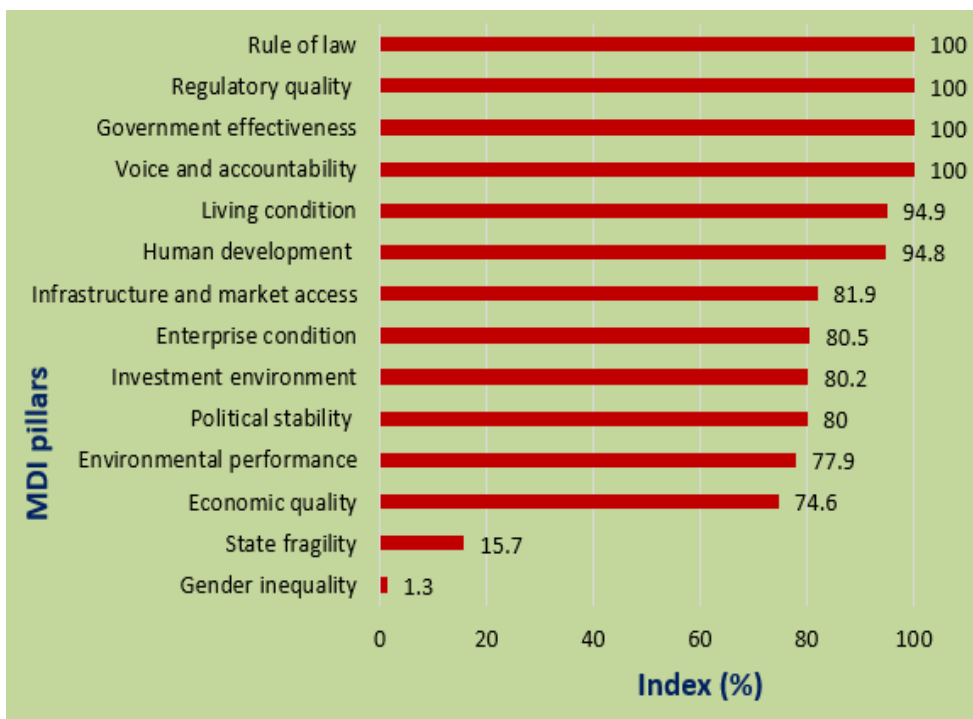
Table 5.3: Development gaps between China and the rest of the world

Region	Absolute difference (%)		
	MDI	**SDI**	**GSI**
North America	19.2	10.1	28.4
Europe and Central Asia	9.2	3.5	14.9
East Asia and the Pacific	-1.9	-8.0	3.2
South Asia	-5.6	-12.0	2.2
Arab States	-6.6	-9.3	-9.0
Latin America and the Caribbean	-7.1	-12.6	1.4
Sub-Saharan Africa	-18.8	-27.6	-9.8
World	-4.0	-10.4	1.5

5.2 Denmark

Denmark is the first top country with high multidimensional development index of 73.9 percent. Good governance, human development, infrastructure and market access, living conditions, state stability, and gender equality are the major achievements contributing to its high state of multidimensional development (Figure 5.2).

Figure 5.1: The state of multidimensional development in Denmark

The development gap, governance in particular, between Denmark and the rest of the world is substantially higher (Table 5.3). Other countries and region of the world lagged behind may benchmark Denmark in their effort of enhancing multidimensional development.
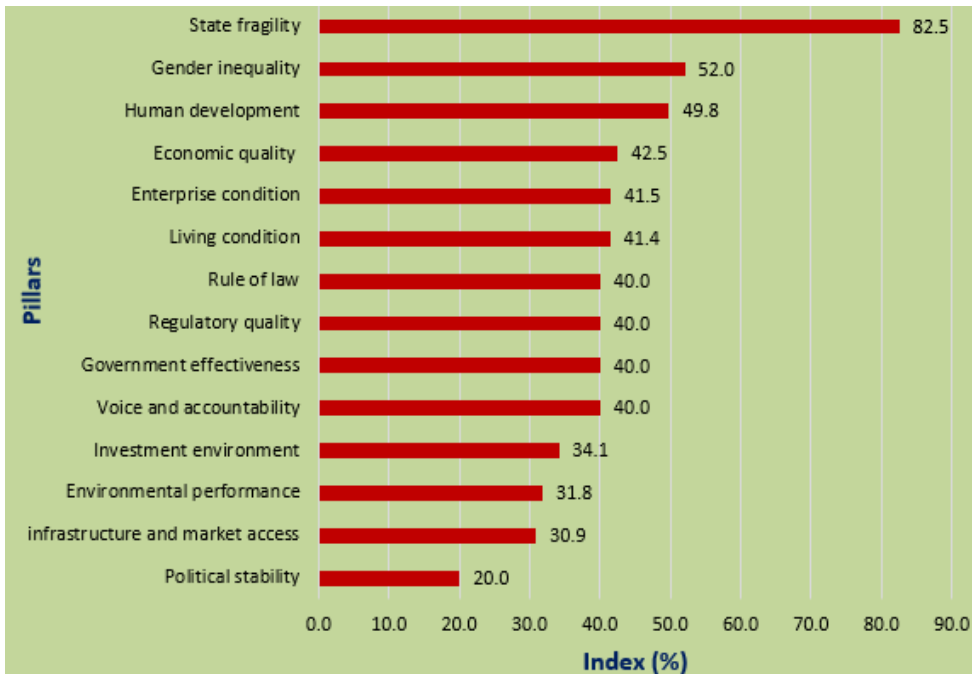
Table 5.4: Development gaps between Denmark and the rest of the world

Region	Absolute difference (%)		
	MDI	**SDI**	**GSI**
North America	-9.1	-8.8	-11.9
Europe and Central Asia	-19.1	-15.4	-25.4
East Asia and the Pacific	-30.2	-26.9	-37.1
South Asia	-33.9	-30.9	-38.1
Arab States	-34.9	-28.2	-49.3
Latin America and the Caribbean	-35.4	-31.5	-38.9
Sub-Saharan Africa	-47.1	-46.5	-50.1
World average	-32.3	-29.3	-38.7

5.3 Ethiopia

Ethiopia, the second populous and the 4th largest economy in SSA, is ranked 141st with low multidimensional development index of 20.13 percent. falling under the bottom countries (Figure 5.3). The primary cause of its status in 2021 is very high state fragility mainly arising from poor security apparatus, group high grievance, factionalized elites, lack of state legitimacy, poor public service, high IDPs, and excessive external intervention. The country loses substantial proportion of its development achievements due to state fragility and gender inequality. Its multidimensional development is also adversely affected by political instability and absence of peace, bad investment environment, and poor environmental performance. It has also weak performance in governance determined by factors such as rule of law, regulatory quality, and voice and accountability.

Figure 5.2: The state of multidimensional development in Ethiopia

The development gap in Ethiopia is multidimensional. Its multidimensional development is far below all regional averages with high governance gap (Table 5.4). Its socioeconomic development is strongly and adversely affected by its weak governance status.
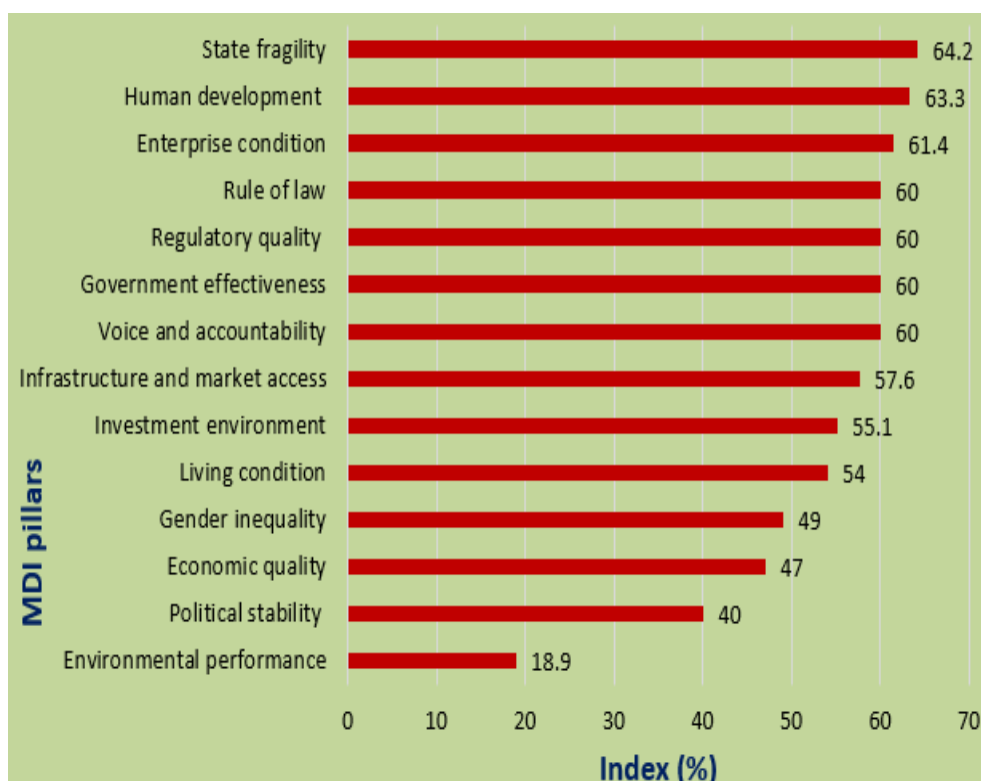
Table 5.5: Development gaps between Ethiopia and the rest of the world

Region	Absolute difference (%)		
	MDI	**SDI**	**GSI**
North America	44.7	40.0	49.2
Europe and Central Asia	34.7	33.4	35.7
East Asia and the Pacific	23.6	21.9	24.0
South Asia	19.9	17.9	23.0
Arab States	18.9	20.6	11.8
Latin America and the Caribbean	18.4	17.3	22.2
Sub-Saharan Africa	6.7	2.3	11.0
World average	21.5	19.5	22.4

5.4 India

India, with the world's second populous and the seventh largest economy in 2021, is ranked 95th with low multidimensional development index of 35.9 percent (Figure 5.4). Its multidimensional development is mainly attributable to high human development, enterprise conditions, and moderate governance. Its development is eroded high state fragility, in addition to the effects of very low environmental performance.

Figure 5.3: The state of multidimensional development in India

Multidimensional development in India is below all the regional averages except for the SSA region (Table 5.5). Its multidimensional development gap is substantially higher compared to countries in NA and ECA.

Table 5.6: Development gaps between India and the rest of the world

Region	Absolute difference (%)		
	MDI	**SDI**	**GSI**
North America	28.9	25.6	29.5
Europe and Central Asia	18.9	19.0	16.0
East Asia and the Pacific	7.8	7.5	4.3
South Asia	4.1	3.5	3.3
Arab States	3.1	6.2	-7.9
Latin America and the Caribbean	2.6	2.9	2.5
Sub-Saharan Africa	-9.1	-12.1	-8.7
World average	5.7	5.1	2.6

5.5 Lebanon

Lebanon is ranked 109th with low multidimensional development index of 29.8 percent (Figure 5.5). High living conditions and human development have contributed more to its multidimensional development. However, high state fragility, low economic quality and environmental performance have adversely affected its multidimensional development.

Figure 5.4: The state of multidimensional development in Lebanon

The most important development gap in Lebanon is governance (Table 5.6). Its multidimensional and socioeconomic development is by far lower than all regional averages including its own region, except for the SSA. Its weak governance is even worse than the SSA average.
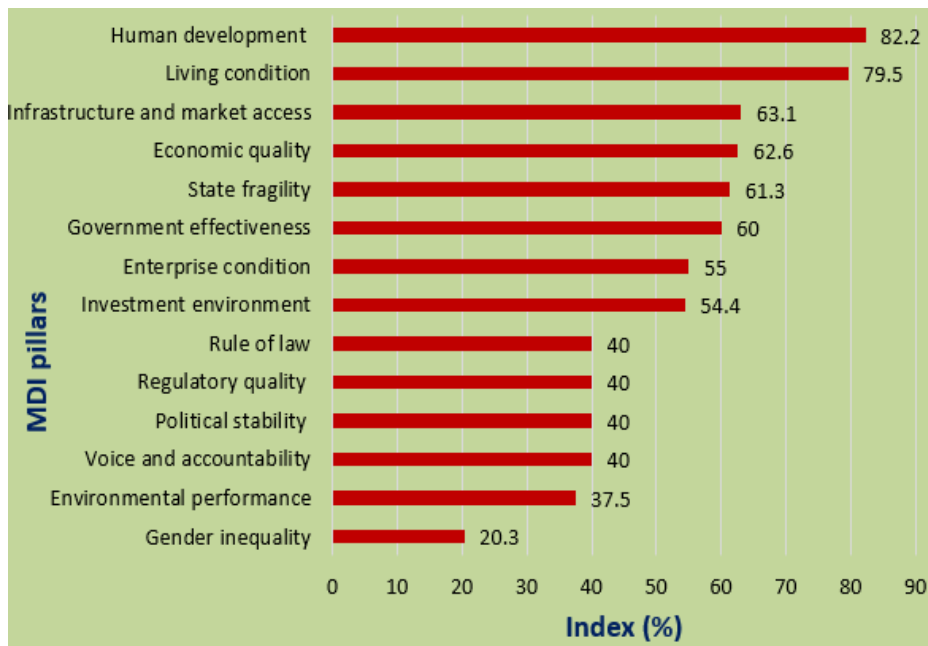
Table 5.7: Development gaps between Lebanon and the rest of the world

Region	Absolute difference (%)		
	MDI	SDI	GSI
North America	35.0	23.9	44.9
Europe and Central Asia	25.0	17.3	31.4
East Asia and the Pacific	13.9	5.8	19.7
South Asia	10.2	1.8	18.7
Arab States	9.2	4.5	7.5
Latin America and the Caribbean	8.7	1.2	17.9
Sub-Saharan Africa	-3.0	-13.8	6.7
World average	11.8	3.5	18.0

5.6 Russia

Russia has the largest land area with the world's 9th populous and the 11th largest economy. It is ranked 83rd with low multidimensional development index of 38.8 percent (Figure 5.6). Very high human development and high living conditions are the most important pillars enhancing socioeconomic development in Russia. Development losses arising from state fragility attributable to the rule of law, regulatory quality, political instability, and voice and accentuality are the major factors affecting its multidimensional development.

Figure 5.5: The state of multidimensional development in Russia

With the exception of two regions (NA and ECA), Russia is better off in socioeconomic development compared to all regional averages (Table 5.7). However, governance gap in Russia is higher than that of all regions of the world including SSA and the AS.
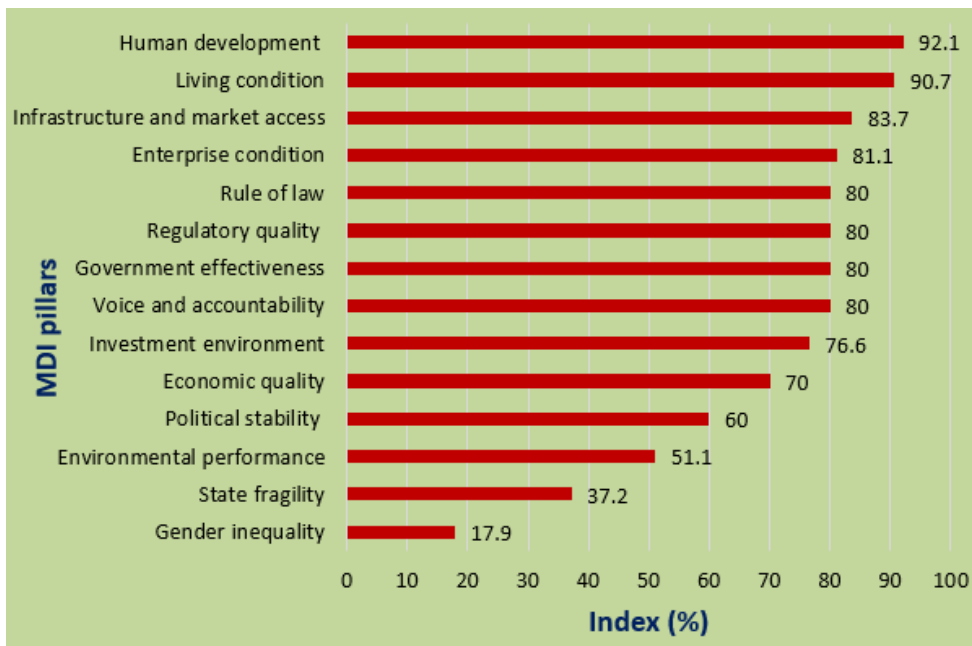
Table 5.8: Development gaps between Russia and the rest of the world

Region	Absolute difference (%)		
	MDI	SDI	GSI
North America	26.0	12.4	39.2
Europe and Central Asia	16.0	5.8	25.7
East Asia and the Pacific	4.9	-5.8	14.0
South Asia	1.2	-9.8	13.0
Arab States	0.2	-7.1	1.8
Latin America and the Caribbean	-0.3	-10.4	12.2
Sub-Saharan Africa	-12.0	-25.4	1.0
World average	2.7	-8.1	12.4

5.7   United States

The United States, with the world's largest economy and the third populous country, is ranked 27th with the bottom medium multidimensional development index of 60.8 percent (Figure 5.7). Its high socioeconomic development arises from very high human development, living conditions, and infrastructure and market access. Moderate governance in the USA is attributable mainly to the rule of law, regulatory quality, government effectiveness, and voice and accountability.

Figure 5.6: The state of multidimensional development in the USA

Compared to all regions of the world, the USA has realized higher socioeconomic development (Table 5.8). With the exception of its region (NA), the USA has moderate state of governance higher than all the other regions of the world.
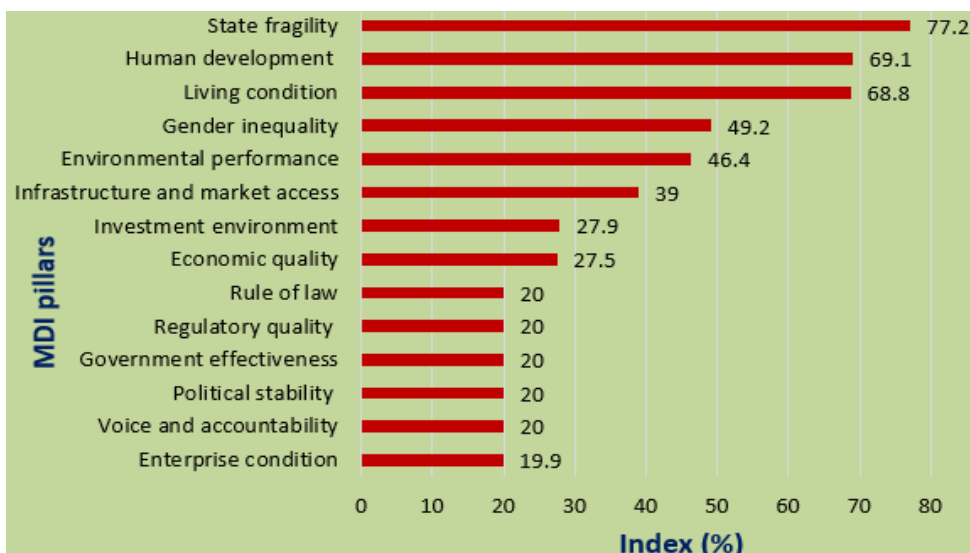
Table 5.9: Development gaps between the USA and the rest of the world

Region	Absolute difference (%)		
	MDI	**SDI**	**GSI**
North America	4.0	-1.8	8.3
Europe and Central Asia	-6.0	-8.4	-5.2
East Asia and the Pacific	-17.1	-19.9	-16.9
South Asia	-20.8	-23.9	-17.9
Arab States	-21.8	-21.2	-29.1
Latin America and the Caribbean	-22.3	-24.5	-18.7
Sub-Saharan Africa	-34.0	-39.5	-29.9
World average	-19.2	-22.3	-18.5

5.8   Venezuela

Venezuela is ranked 149th with very low multidimensional development index of 16.7 percent. Very low multidimensional development in Venezuela is the result of high state fragility causing losses in development achievements and very weak governance (Figure 5.8). High human development, living conditions, and environmental performance are the major sources of multidimensional development in Venezuela.

Figure 5.7: The state of multidimensional development in Venezuela

Venezuela is one of the countries with the highest multidimensional development gaps (Table 5.9). Its governance gap, in particular, is very high compared to the rest of the world (varying from 23.9% to 62.1%). The multidimensional development gap between Venezuela and the world average is also substantially high (13.5% in MDI, 13.5% in SDI, and 24.7% in GSI).

Table 5.10: Development gaps between Venezuela and the rest of the world

Region	Absolute difference (%)		
	MDI	SDI	GSI
North America	48.1	32.9	62.1
Europe and Central Asia	38.1	26.3	48.6
East Asia and the Pacific	27.0	14.8	36.9
South Asia	23.3	10.8	35.9
Arab States	22.3	13.5	24.7
Latin America and the Caribbean	21.8	10.2	35.1
Sub-Saharan Africa	10.1	-4.8	23.9
World average	24.9	12.5	35.3

6. RECOMMENDATIONS

The findings of this study have enabled to identify multifaced implications on socioeconomic and governance policies of nations and their likely outcomes. Six most important recommendations are particularly synthesized as described below.

1. All the 14 pillars are important in explaining the MDI. Global performance of multidimensional development is driven by state of human development (health, education and income), living conditions (access to basic services and material resources), political stability, and governance. To realize aspirations of multidimensional and sustainable development goals, countries should give due policy focus to all the pillars. Government effectiveness, state stability, gender equality, regulatory quality, rule of law, and living conditions, in particular, have strong effect on policy outcomes of nations.

2. Poor governance is the primary challenge of multidimensional development around the world. Hundred countries are in weak and very weak governance status. Consequently, the major multidimensional development gap experienced by many countries is associated with their poor governance. The world is suffering from poor governance and political leadership. Nations are expected to improve their governance and leadership quality with active participation of citizens and formation of responsible and accountable governments.

3. Socioeconomic development and governance are strongly and increasingly complementary. If there is poor governance and leadership quality, socioeconomic development achievements will be lost. Nations should give balanced focus to both socioeconomic and governance (or political) policies and align each other to realize positive policy outcomes.

4. State fragility and gender inequality are the major causes of development losses of nations. State fragility arising from economic, social, and political dimensions strongly cause development losses. Limited participation of women in the labor market, reproductive health, and empowerment are the major cause of development losses arising from gender disparity. In order to enhance multidimensional development, nations are required to realize political stability and reduce gender inequality through gender-transformative policies.

5.   The MDI measures are strongly aligned with the SDGs. Nations and other stakeholders of development can assess their state of socioeconomic development and governance using the MDI measures and simultaneously gauge achievement of the SDGs.

6.   Multidimensional determinant is determined by a number of exogenous factors which are mostly beyond the control of individual countries. These factors include land area, ethnic fractionalization, religion, age dependency, military strength, globalization, availability of seaport, vulnerability to climate change, political freedom, and total reserves. Nations are required to give due care to the costs and benefits of these factors which may be manipulated in the long-term.

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