HOW WE CONSTRUCT THE INDEX

This section contains an overview of the framework and construction of the Ibrahim Index of African Governance (IIAG). For more information please see a more detailed technical methodology via our website at mo.ibrahim. foundation/iiag/downloads/ or contact the IIAG Research Team at research@moibrahimfoundation.org.

1. INTRODUCTION

The Ibrahim Index of African Governance (IIAG) measures the quality of governance in every African country on an annual basis. It does this by compiling data from diverse sources to build an accurate and detailed picture of governance performance in every African country.

The broad aim of the IIAG is to better inform and sustain the debate on African governance by providing a transparent and user-friendly resource to:

- support citizens, governments, institutions and the private sector to accurately assess the delivery of public goods and services and policy outcomes.

- encourage data-driven narratives on governance issues.

- help determine, debate and strengthen government performance.

The IIAG was launched in 2007 and has evolved to be the most comprehensive assessment on African governance. The 2016 IIAG is the tenth iteration and builds on the work of the previous nine years. The IIAG is conceptually driven by the Mo Ibrahim Foundation (MIF) Board and the IIAG Advisory Council and is refined on an annual basis, offering a continually improving assessment of governance in Africa.

This annual refinement means that the IIAG data set is updated when practical improvements are identified. When new historical data are made available, or the structure of the IIAG is strengthened, the entire data set is updated back to 2000. **Users of the Index should therefore always reference the most recent version of the IIAG data set.**

## 2. FRAMEWORK OF THE IIAG

Measuring Governance

MIF defines governance as the provision of the political, social and economic public goods and services that every citizen has the right to expect from their state, and that a state has the responsibility to deliver to its citizens. The IIAG focuses on outputs and outcomes of policy, rather than declarations of intent, *de jure* statutes and levels of expenditure.

The governance framework has four overarching categories: *Safety & Rule of Law, Participation & Human Rights, Sustainable Economic Opportunity* and *Human Development*. These categories are made up of a total of 14 sub-categories.

These four overarching dimensions and the constituent sub-categories provide a citizen-centric governance framework around which to organise underlying data and construct the IIAG.

The 14 sub-categories are populated with a number of indicators which measure a narrow governance concept. Each of these indicators captures an aspect of the sub-category topic.

This framework allows the user to analyse governance performance within both distinctive and broad governance concepts by different results tiers – at the *Overall Governance* level, category and sub-category level, and indicator level.
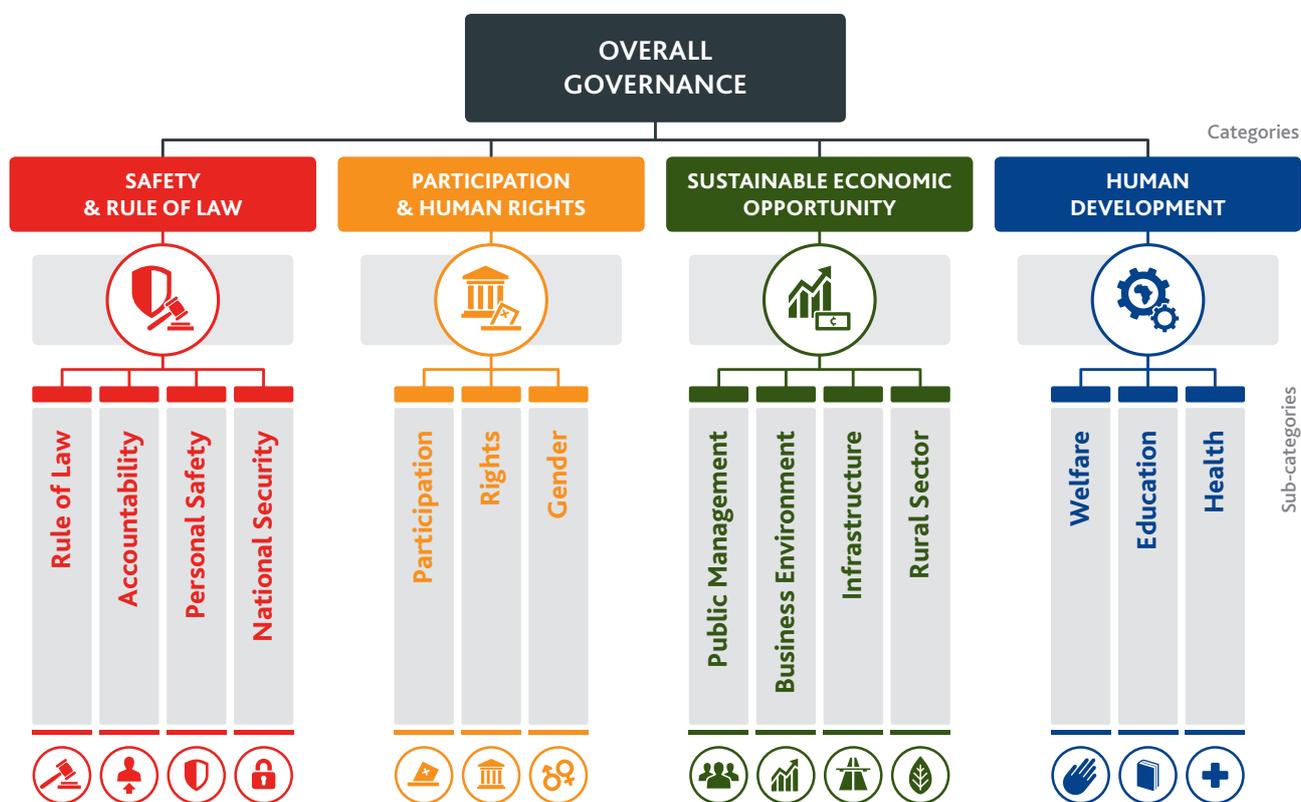
3. CONSTRUCTION OF THE IIAG

3.1 Criteria for Data Inclusion

As governance is not measurable directly it is necessary to determine the most suitable set of proxy indicators. The IIAG takes into account potentially diverse viewpoints by making use of a variety of data sources and indicators.

The Foundation does not collect primary data, but rather collates data provided by respected external sources. The 2016 IIAG consists of 95 indicators from 34 data providers. A distinctive characteristic of the IIAG is that it is based on the aggregation of multiple types of data, utilising Official Data (OD), Qualitative Assessments (QA), Opinion Surveys (OS) and Public Attitude Surveys (PAS).

In order to be included in the IIAG, a measure has to be a suitable governance proxy. The data are required to cover at least 33 of the 54 countries on the continent and provide at least two years' worth of data for these countries since 2000. Further, the most recent data for these 33 countries can be no more than three years old.
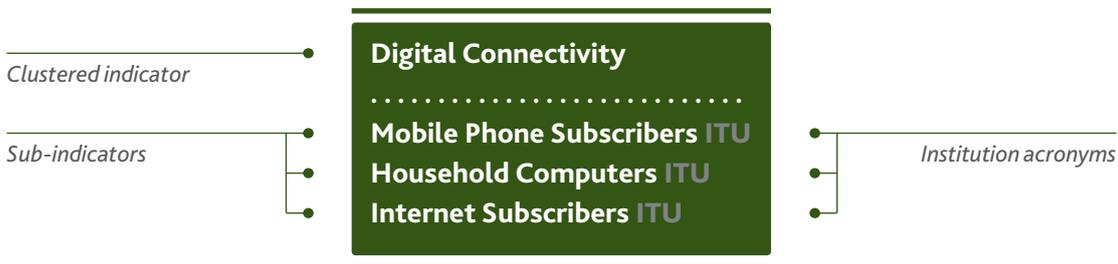
When a measure meets these criteria for inclusion it is assigned to the sub-category in which it sits best conceptually. Assigning an indicator to one of the 14 sub-categories is not straightforward as the dimensions of governance are not independent.

Methodology

Clustered Indicators

Indicators measuring a specific governance concept are sometimes available from multiple sources. For example, data measuring political violence are available from two different data providers: Armed Conflict Location & Event Data Project and Political Terror Scale. To improve the accuracy of the indicator measurement and avoid double counting, these measures are combined into a single clustered indicator, which is the average of its underlying sub-indicators.

Clustered indicator

Political Violence
. . . .
Government Violence against Civilians ACLED
Political Violence PTS

Sub-indicators

Institution acronyms

Further, some indicators measure a governance concept which is too narrow for inclusion as a stand-alone indicator. For example, the measures *IT Infrastructure* from the Economist Intelligence Unit, *Mobile Phone Subscribers, Household Computers* and *Household Internet Access*, all taken from the International Telecommunications Union, are clustered together to become sub-indicators of the indicator *Digital & IT Infrastructure*.

Clustered indicator

Digital Connectivity
. . . .
Mobile Phone Subscribers ITU
Household Computers ITU
Internet Subscribers ITU

Sub-indicators

Institution acronyms

The same inclusion criteria are applied to sub-indicators and stand-alone indicators.

3.2 Handling Missing Data

Most indicators included in the IIAG have missing data points over the time series. As this can have an effect on a country's aggregate scores, estimates are provided for missing data, following a statistical process called imputation. According to this process, if data is missing outside the time series, it is replaced by an existing data point. When data is missing inside the time series, these are replaced with numbers incrementally higher or lower than the neighbouring data points.

Country A	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Raw data from source		85.1	84.8			82.8
Between data points		85.1	84.8	*84.1*	*83.5*	82.8
Outside data points	*85.1*	85.1	84.8	*84.1*	*83.5*	82.8

3.3 Normalisation

Given that the data utilised in the construction of the IIAG come from 34 separate data providers that present their data on different scales, it is necessary to standardise all data. This is done through a statistical process called normalisation whereby raw data for each indicator are transformed by the min-max normalisation method. This process allows all scores to be published in common units and within the same bounds of 0-100, where 100 is always the best possible score.

The application of this normalisation method means that a score of 100 relates to the best possible score within the group of 54 African countries between 2000 and the latest data year.

3.4 Data Aggregation

The IIAG uses a transparent, simple and replicable method of data aggregation. A simple average is calculated using the structure of the Index to arrive at the *Overall Governance* scores.

4. ANALYSIS OF THE INDEX: MEASUREMENT ERRORS & UNCERTAINTY

The Foundation publishes standard errors and confidence intervals alongside the composite IIAG and category scores to reflect degrees of uncertainty, which are available on the Foundation's website.

The standard errors and confidence intervals allow users of the IIAG to discriminate, to a certain degree, between changes in the values of the IIAG that can be confidently treated as actual changes in the state of governance and changes that might be due to noise, or are at least insufficiently sizeable to be able to ascribe a high likelihood to such change being significant. This allows users of the IIAG to make more sophisticated use of the governance information provided by the IIAG.