

2022 IIAG:

Key findings

30.2	64.9	32.7	18.5	59.5	31.0	81.2	76.2	52.4	35.1	16.2	18.5	100.0
45.1	66.7	45.3	36.5	74.1	52.8	66.5	66.7	76.1	47.2	25.6	44.0	59.2
18.1	100.0	18.1	28.6	69.4	46.1	87.5	11.2	58.3	63.9	11.1	52.6	100.0
22.0	80.3	22.3	30.6	33.3	22.6	45.4	22.4	31.2	22.9	10.5	27.3	50.0
18.9	99.2	27.7	58.9	23.6	87.5	48.7	44.9	49.0	57.4	14.6	28.7	32.6
38.4	59.2	26.0	42.3	56.7	60.2	63.8	84.9	57.6	59.6	24.1	44.7	58.6
27.4	71.4	26.2	35.7	60.7	63.1	66.7	100.0	56.0	59.5	21.4	42.5	50.0
46.3	31.9	50.1	36.9	60.9	63.4	80.1	73.5	54.8	43.9	13.1	38.0	84.5
49.0	100.0	33.3	71.2	59.7	59.8	78.7	86.2	59.4	45.2	17.9	49.2	77.8
25.0	70.8	0.0	50.5	62.5	65.0	12.5	64.5	75.0	62.0	37.5	47.4	12.5
44.6	21.9	20.3	17.1	39.7	50.0	80.9	100.0	42.6	87.2	30.8	46.7	68.0
50.4	73.6	44.1	42.3	66.1	55.0	72.8	68.5	57.4	50.7	30.2	47.2	76.2
87.4	77.4	81.2	57.6	90.8	53.5	85.3	76.2	59.6	56.3	56.2	55.6	89.4
98.7	51.9	99.8	41.8	98.7	45.8	100.0	83.0	53.6	47.6	85.1	58.8	100.0
88.8	92.2	84.3	41.0	92.6	26.9	93.8	83.1	26.0	20.1	6.3	38.9	100.0
99.8	85.1	99.5	49.9	99.9	82.5	99.8	91.2	92.9	85.0	68.6	79.2	100.0
49.8	66.9	40.7	67.1	73.8	76.8	68.5	70.6	43.5	73.2	32.2	67.1	71.9
99.7	93.3	81.8	70.7	89.2	59.5	64.6	87.8	81.8	67.9	89.0	65.3	75.2
48.8	75.0	39.9	75.0	64.7	29.6	76.4	41.5	59.0	44.2	24.8	24.1	88.5
36.3	75.7	50.9	34.7	70.9	58.2	87.5	68.7	69.8	41.5	32.4	52.7	93.5
1.6	69.3	39.4	25.5	47.6	68.4	67.4	64.6	65.8	45.7	1.8	52.1	98.2
65.8	73.7	29.6	35.6	47.4	39.3	75.8	36.2	50.3	21.1	21.1	31.9	81.5
69.1	90.2	56.3	42.7	89.4	66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0
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57.4	53.2	32.0	22.1	74.7	52.8	91.3	72.4	59.1	26.0	31.5	50.2	90.2
26.9	82.2	29.2	34.6	52.0	48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4
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31.0	81.2	76.2	52.4	35.1	16.2	18.5	100.0					
66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0					
64.1	67.9	91.4	44.2	73.8	28.7	79.1	67.6					
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48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4					

The last decade (2012-2021) of governance progress is at risk as overall governance in Africa has flatlined since 2019

Despite a marginal improvement over the past decade (2012-2021), overall governance on the continent has flatlined since 2019. Improvements in human development and economic foundations are undermined by an increasingly perilous security situation and widespread democratic backsliding – as the continent struggles to manage the combined impacts of global, non-African born challenges such as the COVID-19 pandemic and the climate crisis.

As we speak, all these pre-existing challenges are being compounded by the effects of the ongoing Russia-Ukraine war, which started on 24 February 2022 (even if its effects are not yet captured in the IAG time period).

With 2023 being the halfway point to meeting the Sustainable Development Goals (SDGs), and the first 10-year milestone of Agenda 2063, action is urgently needed to address democratic backsliding and growing insecurity to avoid reversing several years of governance progress.

Key messages

1. Africa's *Overall Governance* score has flatlined since 2019, and in 2021 much of Africa is less safe, secure and democratic than in 2012. The continent's progress has been affected by concerning deteriorations in both *Security & Rule of Law* and *Participation, Rights & Inclusion*, with the pace of decline accelerating since 2017.
2. Meanwhile, both *Foundations for Economic Opportunity and Human Development* have improved since 2012. However, for most African countries huge challenges remain in areas such as employment, as well as transport and energy infrastructure.
3. Over the last three years (2019-2021), COVID-19 has exacerbated concerning pre-existing trends. The pandemic impact has only accelerated the deterioration in both *Security & Rule of Law* and *Participation, Rights & Inclusion*, as well as laid bare the weaknesses of Africa's health and education systems.
4. Without sustained action to reverse these trends, Africa's ability to achieve the global SDGs and the longer-term African Union's (AU) Agenda 2063 is gravely curtailed. The continent's worsening security situation and democratic backsliding are all the more concerning given the combined impacts of global, non-African born challenges such as the COVID-19 pandemic and the climate crisis. This is now exacerbated by the ongoing Russia-Ukraine war, and its particularly harsh indirect impact on Africa.
5. Data gaps remain a key concern. Without sound data, governments drive blind and there can be no sustained governance improvement nor effective policymaking. The Mo Ibrahim Foundation (MIF) remains at the forefront of supporting initiatives to strengthen the continent's data landscape.

The Ibrahim Index of African Governance (IIAG), published every two years, is the most comprehensive dataset measuring African governance performance. It constitutes a framework for citizens, governments, institutions, academics and business to assess the delivery of public goods and services, and policy outcomes, across Africa.

The 2022 IIAG -in its 14th iteration- contains:

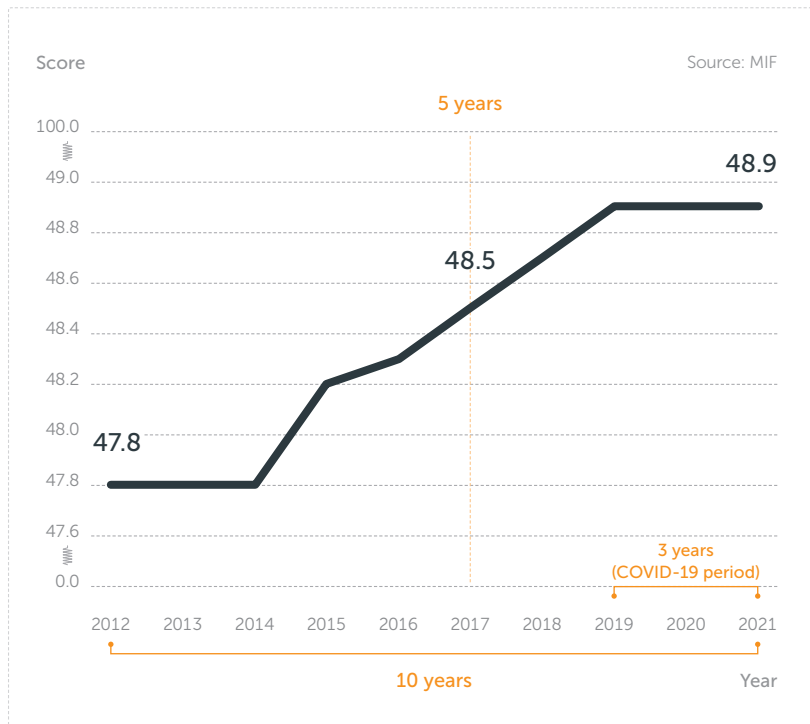
- The latest available decade of data: 2012-2021
- 54 countries
- A collection of 265 variables from 47 sources
- 81 indicators, 95% of which are clustered to provide a governance assessment supported by multiple proxy measurements
- 223,020 data points

1. Africa’s Overall Governance score has flatlined since 2019, and in 2021 much of Africa is less safe, secure and democratic than in 2012. The continent’s progress has been affected by concerning deteriorations in both Security & Rule of Law and Participation, Rights & Inclusion, with the pace of decline accelerating since 2017.

- On average on the continent, **Overall Governance** is still better in 2021 than in 2012. The African average score for *Overall Governance* has increased by +1.1 points over the decade.
- 35 out of 54 African countries have experienced an improvement since 2012 but only 15 of them have managed to accelerate progress over the past five years (2017-2021). More concerningly, 22 countries have seen their score decrease in that latest period.
- Between 2019 and 2021, *Overall Governance* on the continent has flatlined (at 48.9 out of 100.0) – in line with the outbreak of COVID-19 and increased political unrest, with 8 successful coups between 2019 and 2022.
- Further progress in *Overall Governance* has been held back by the deterioration of both *Security & Rule of Law*, and *Participation, Rights & Inclusion*, as at least 30 African countries have declined over the decade in each category (32 and 31, respectively).

Despite showing improvement over the decade, *Overall Governance* has stalled since 2019

Africa: Overall Governance scores (2012-2021)



- **Security & Rule of Law** (-1.3) has registered the largest decline over the decade, with a substantial increase of the pace of deterioration over the last five years. In 2021, almost 70% of the continent's population live in a country where the level of *Security & Rule of Law* is worse than in 2012.

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- The key driver of this negative trend is the *Security & Safety* sub-category. Despite remaining the highest scoring of all IIAG's 16 sub-categories, *Security & Safety* (-5.8) has experienced the largest sub-category decline over the decade. This is largely due to increased armed conflicts and violence against civilians, with *Absence of Violence against Civilians* (-10.9) and *Absence of Armed Conflict* (-8.6) being the second and third most deteriorated of all IIAG's 81 indicators over the decade.
- Since 2017, the increasing deterioration in *Security & Rule of Law* has also been driven by the sub-categories *Rule of Law & Justice* and *Anti-Corruption*. Even though both have reached in 2021 a better level than in 2012, progress has stopped for *Anti-Corruption* since 2017 and *Rule of Law & Justice* has worryingly reverted to decline.

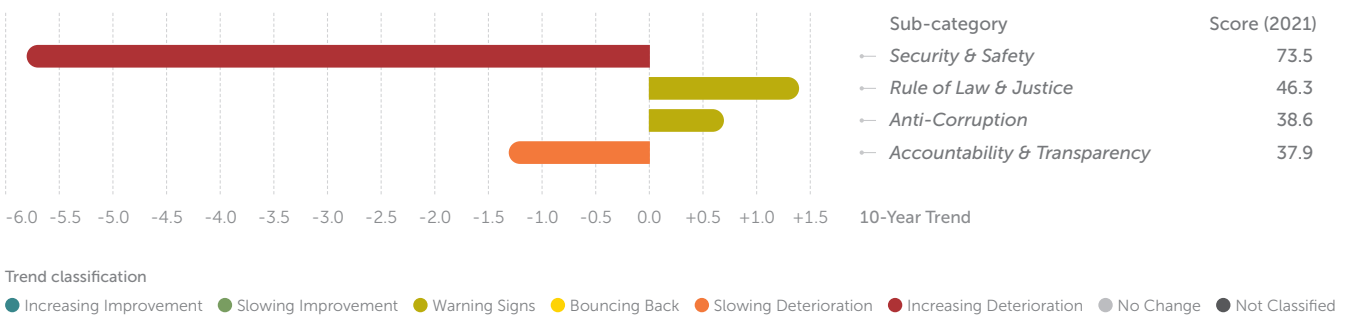
Security & Safety and *Accountability & Transparency* have been the 1st and 4th most declined sub-categories since 2012 (out of all IIAG's 16 sub-categories)

The deterioration in *Security & Safety* (-5.8) is the worst of all IIAG's 16 sub-categories over the decade 2012-2021

Since 2017, progress in *Anti-Corruption* has stopped and *Rule of Law & Justice* has worryingly reverted to decline

Africa: *Security & Rule of Law*, sub-category scores and trends (2012-2021)

Source: MIF



- **Participation, Rights & Inclusion** remains the lowest scoring IIAG category with the average rate of decline doubling since 2017. More than 60% of Africa’s citizens live in a country where this category has declined over the past ten years, and more than one third live in a country where decline has accelerated since 2017.

Participation, Rights & Inclusion: in 2021, more than 60% of Africa’s citizens live in a country where the level is worse than in 2012

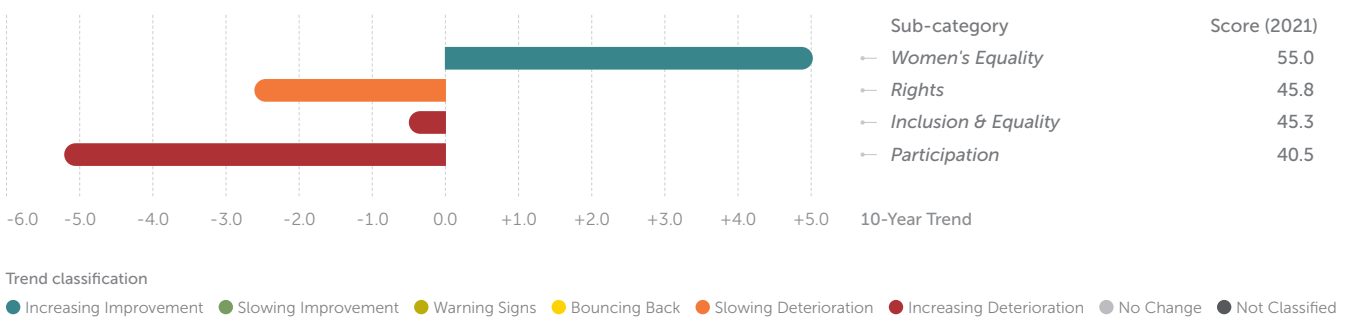
- This deterioration has been mostly driven by *Participation* (-5.2), the IIAG’s second most declined sub-category since 2012, and, to a lesser extent, by the *Rights* sub-category (-2.6).
- The decline in *Participation* has been mostly driven by *Freedom of Association & Assembly* (-11.3), the most deteriorated of all IIAG’s 81 indicators over the ten years, and *Civil Society Space* (-5.5). Between 2017 and 2021, the deterioration in the *Participation* sub-category has even accelerated, driven by further restrictions on freedom of association and assembly, as well as less free and fair elections.
- There is, however, a bright spot in the substantial improvement in the *Women’s Equality* sub-category, with progress made in 42 African countries, as rights, political representation, economic opportunities and access to public services for women have improved in the past decade.

Out of all IIAG's 81 indicators, *Freedom of Association & Assembly* is the most deteriorated since 2012

Since 2017 *Participation* is the most declined sub-category (out of all IIAG’s 16 sub-categories)

Africa: *Participation, Rights & Inclusion*, sub-category scores and trends (2012-2021)

Source: MIF



- Since 2017, multiple countries have been marred by growing insecurity with a sharp increase of coups and armed conflicts – from Mali to Ethiopia. Coupled with a contraction in the participatory environment, this poses a substantial threat to *Overall Governance*.

2. Meanwhile, both *Foundations for Economic Opportunity* and *Human Development* have improved since 2012. However, for most African countries huge challenges remain in areas such as employment, as well as transport and energy infrastructure.

- The drivers of *Overall Governance* progress over the decade are *Foundations for Economic Opportunity* and *Human Development*, as more than 40 African countries have improved over the decade in each category (43 and 48, respectively).
- ***Human Development*** (+3.5) has registered the largest improvement over the decade, and has even accelerated its pace of progress since 2017. It is also the highest scoring IIAG category and the only one to improve year-on-year between 2012 and 2021. In 2021, more than 90% of Africa's population live in a country where the level of *Human Development* is better than in 2012.
- One of the key drivers of the continued improvement in *Human Development* is *Health*, the third highest scoring in 2021 of all IIAG's 16 sub-categories. Since 2012, *Health* (+4.7) has been the third most improved sub-category, driven by progress in child and maternal health, greater control of communicable diseases, better compliance with international health regulations, as well as increased access to water and sanitation.
- Improvement in *Human Development* has also been driven by *Sustainable Environment*. This sub-category has improved by +3.5 points over the decade, thanks to progress in all underlying indicators (*Air Quality, Enforcement of Environmental Policies, Land & Water Biodiversity Protection, Sustainable Use of Land & Forests* and *Promotion of Environmental Sustainability*).

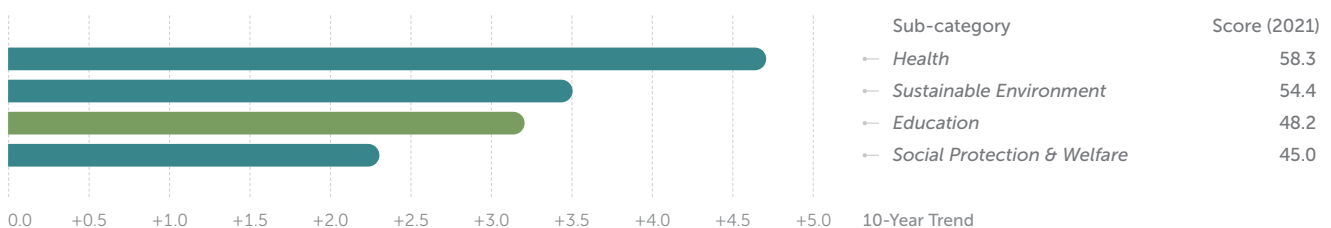
For both *Foundations for Economic Opportunity* and *Human Development*, more than 40 African countries have improved between 2012 and 2021

In 2021, more than 90% of Africa's population lives in a country where the level of *Human Development* is better than in 2012

All four *Human Development* sub-categories feature among the six IIAG sub-categories that have improved the most since 2012: *Health* (3rd), *Sustainable Environment* (4th), *Education* (5th) and *Social Protection & Welfare* (6th)

Africa: *Human Development*, sub-category scores and trends (2012-2021)

Source: MIF



Trend classification

● Increasing Improvement ● Slowing Improvement ● Warning Signs ● Bouncing Back ● Slowing Deterioration ● Increasing Deterioration ● No Change ● Not Classified

- **Foundations for Economic Opportunity** (+3.0) has also followed a positive trajectory since 2012. However, its pace of improvement has slowed down since 2017. 43 countries – hosting 88.0% of Africa’s population – have improved in *Foundations for Economic Opportunity* over the decade, with 28 – home to 52.3% of the continent’s population – building on this momentum to manage to accelerate progress since 2017.
- The key driver of this positive trend is *Infrastructure*, the only sub-category to see all 54 countries improve since 2012. Despite being the lowest scoring of all IIAG’s 16 sub-categories, *Infrastructure* (+8.1) has experienced the largest sub-category improvement over the decade. This is largely due to the growth of digital infrastructure, with *Mobile Communications* (+21.8) and *Internet & Computers* (+16.9) being the most improved of all IIAG’s 81 indicators over the decade. There is greater access to internet and computers now than in 2012 in every African country, as well as an increase in mobile connectivity and communications in every country but South Sudan.
- The *Public Administration* sub-category (+1.0) has also improved since 2012 due to strides in the capacity of statistical systems and improved civil registration systems. National statistics offices (NSOs) are providing greater data coverage and are making their data more open and accessible. Civil registration systems are also better now than in 2012, with the improved timeliness of no-cost birth and death certificates.

For almost 90% of Africa’s population, the level of *Foundations for Economic Opportunity* is higher in 2021 than in 2012

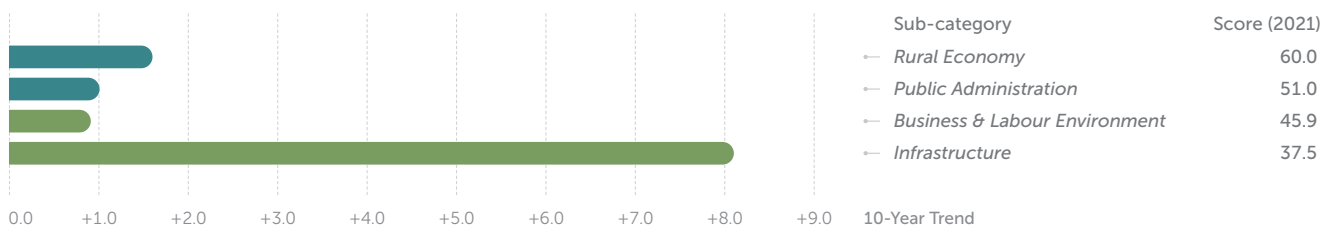
Infrastructure is the only sub-category for which all 54 countries have improved since 2012, largely thanks to progress in digital infrastructure

Notable progress has also been achieved in the capacities of national statistical systems and civil registration systems, driving improvement in *Public Administration*

There is improvement across all four *Foundations for Economic Opportunity* sub-categories over the past decade

Africa: *Foundations for Economic Opportunity*, sub-category scores and trends (2012-2021)

Source: MIF



Trend classification

- Increasing Improvement
- Slowing Improvement
- Warning Signs
- Bouncing Back
- Slowing Deterioration
- Increasing Deterioration
- No Change
- Not Classified

- However, for most African countries huge challenges remain in areas such as employment, as well as transport and energy infrastructure. The indicator *Labour Relations* (-4.2) has experienced large declines since 2012.
- A priority for regional integration on the continent, transport networks have experienced a slight decline since 2012, driven by deterioration in road and air infrastructure, even though further deterioration has been prevented by progress in rail infrastructure.
- Moreover, Africa still faces the great challenge of energy access. Without widespread safe, reliable energy, it will be difficult for African countries to realise their development goals.
- Despite improving over the decade (+7.0), progress in the *Access to Energy* indicator has started from a low base. In Africa, roughly 600 million people still lack access to electricity and over 950 million people still lack access to clean cooking fuels.

3. Over the last three years (2019-2021), COVID-19 has exacerbated concerning pre-existing trends. The pandemic impact has only accelerated the deterioration in both *Security & Rule of Law* and *Participation, Rights & Inclusion*, as well as laid bare the weaknesses of Africa's health and education systems.

- For ***Security & Rule of Law***, the pace of deterioration between 2019 and 2021, since the COVID-19 outbreak, has increased almost four-fold compared to the prior years in the 2022 IIAG time series (2012-2019).
- The last three years (2019-2021) have seen a further worsening of the security situation, with higher levels of conflict, government violence against civilians and political unrest (with 8 successful coups between 2019 and 2022).
- The 2022 IIAG highlights this worrying trend of state-backed violence, with deterioration in the indicators *Absence of Violence against Civilians* and *Absence of Armed Conflict* accelerating since COVID-19 started.
- For ***Participation, Rights & Inclusion***, the average annual rate of decline since 2019 has increased almost six-fold compared to 2012-2019.
- The last three years have seen a wave of democratic backsliding across Africa, with infringements on rights and restrictions on civic space. Although this trend predates the pandemic, existing antidemocratic tendencies have been accelerated by the introduction of restrictive measures and emergency provisions that have been left in place for an extended time-period.
- The most deteriorated indicators in this category since 2019 are *Freedom of Association & Assembly* and *Democratic Elections*. While the pace of decline has accelerated for *Freedom of Association & Assembly*, the deterioration in *Democratic Elections* has undone all the progress made between 2012 and 2019.
- For ***Human Development***, progress has taken place at a slower pace between 2019-2021.
- This slower progress has mostly been driven by the sub-categories *Education* and *Sustainable Environment*. While the *Sustainable*

Environment sub-category has even reversed to a decline since COVID-19 started, the pace of improvement in the *Education* sub-category is almost nine times smaller than in the years leading up to the pandemic (2012-2019).

- o Even though the 2022 IIAG shows large gains in public health and education services compared to 2012, the last three years have seen COVID-19 severely disrupt the continent's education systems and laid bare the inadequacies of its health capacities to deal with complex health challenges.
- ***Foundations for Economic Opportunity*** is the only IIAG category to perform better since COVID-19 started.
- o In light of the seismic economic shocks of COVID-19, this improved performance over the last three years is cause for optimism.
- o The faster progress in *Foundations for Economic Opportunity* has been mostly driven by the *Public Administration* sub-category, with an average annual pace of improvement five times higher between 2019-2021 when compared with 2012-2019.
- o However, over the last three years progress in *Business & Labour Environment* has completely halted, and it has nearly halved in *Infrastructure*.

4. Without sustained action to reverse these trends, Africa's ability to achieve the global SDGs and the longer-term African Union's (AU) Agenda 2063 is gravely curtailed. The continent's worsening security situation and democratic backsliding are all the more concerning given the combined impacts of global, non-African born challenges such as the COVID-19 pandemic and the climate crisis. This is now exacerbated by the ongoing Russia-Ukraine war, and its particularly harsh indirect impact on Africa.

- Decades of governance progress are put at risk by resurgent conflict and democratic backsliding, as the continent struggles to manage the combined impacts of COVID-19, the climate crisis, political instability and coups, as well as insufficient access to food and energy.
- o Additionally, all these pre-existing challenges are compounded by the effects of the ongoing Russia-Ukraine war, which started on 24 February 2022.
- Considering these cumulative crises to which Africa is uniquely exposed, the 2022 IIAG can be taken as a warning that unless sustained good governance is prioritised, Africa's progress and ability to achieve in due time the global SDGs and the African Union's (AU) Agenda 2063 is under threat.
- o With 2023 being the halfway point to meeting the global SDGs, action is urgently needed to address the democratic backsliding and growing insecurity. The focus must be on improving all areas of governance to achieve meaningful and sustainable progress. There can be no trade-offs between the different components of governance.



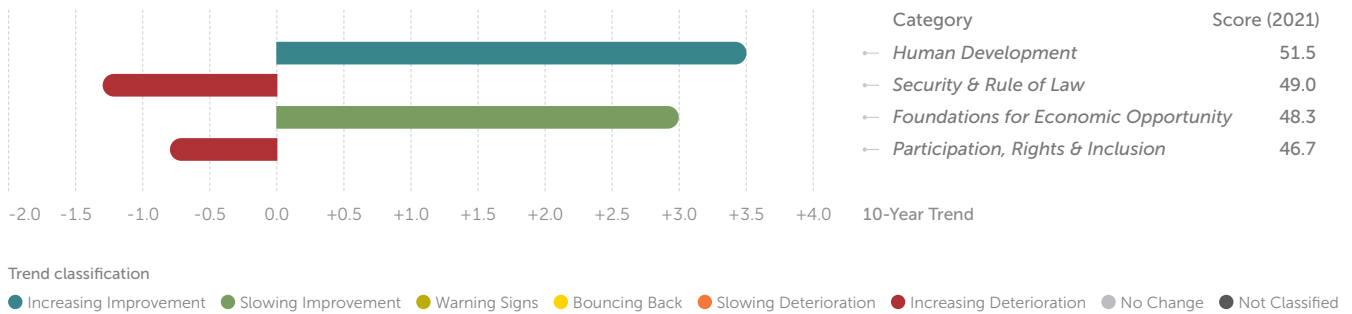
There have been diverging IIAG category trends since 2012: while *Foundations for Economic Opportunity* and *Human Development* have improved, *Security & Rule of Law* and *Participation, Rights & Inclusion* have deteriorated



To achieve meaningful and sustainable progress, there can be no trade-offs between the different components of governance

Africa: IIAG category scores and trends (2012-2021)

Source: MIF



5. Data gaps remain a key concern. Without sound data, governments drive blind and there can be no sustained governance improvement nor effective policymaking. The Mo Ibrahim Foundation (MIF) remains at the forefront of supporting initiatives to strengthen the continent's data landscape.

- The IIAG framework is revised biennially to ensure the latest and most relevant data on governance dimensions is included, to provide a more accurate picture of the reality on the ground. The revision allows to highlight the governance dimensions still suffering from data gaps at source.
- As of now, there is not enough data for Africa on key areas such as health capacities, rural sector and climate change resilience.
- The lack of up-to-date and relevant data on these areas severely hinders Africa's responses to the COVID-19 pandemic and climate crisis, besides effective policymaking.

There are key data gaps on health, environment and rural areas, all fundamental when it comes to efficiently addressing climate change, pandemics and food insecurity



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22.0	80.3	22.3	30.6	33.3	22.6	45.4	22.4	31.2	22.9	10.5	27.3	50.0
18.9	99.2	27.7	58.9	23.6	87.5	48.7	44.9	49.0	57.4	14.6	28.7	32.6
38.4	59.2	26.0	42.3	56.7	60.2	63.8	84.9	57.6	59.6	24.1	44.7	58.6
27.4	71.4	26.2	35.7	60.7	63.1	66.7	100.0	56.0	59.5	21.4	42.5	50.0
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87.4	77.4	81.2	57.6	90.8	53.5	85.3	76.2	59.6	56.3	56.2	55.6	89.4
98.7	51.9	99.8	41.8	98.7	45.8	100.0	83.0	53.6	47.6	85.1	58.8	100.0
88.8	92.2	84.3	41.0	92.6	26.9	93.8	83.1	26.0	20.1	6.3	38.9	100.0
99.8	85.1	99.5	49.9	99.9	82.5	99.8	91.2	92.9	85.0	68.6	79.2	100.0
49.8	66.9	40.7	67.1	73.8	76.8	68.5	70.6	43.5	73.2	32.2	67.1	71.9
99.7	93.3	81.8	70.7	89.2	59.5	64.6	87.8	81.8	67.9	89.0	65.3	75.2
48.8	75.0	39.9	75.0	64.7	29.6	76.4	41.5	59.0	44.2	24.8	24.1	88.5
36.3	75.7	50.9	34.7	70.9	58.2	87.5	68.7	69.8	41.5	32.4	52.7	93.5
1.6	69.3	39.4	25.5	47.6	68.4	67.4	64.6	65.8	45.7	1.8	52.1	98.2
65.8	73.7	29.6	35.6	47.4	39.3	75.8	36.2	50.3	21.1	21.1	31.9	81.5
69.1	90.2	56.3	42.7	89.4	66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0
62.8	91.8	31.1	47.8	58.3	64.1	67.9	91.4	44.2	73.8	28.7	79.1	67.6
57.4	53.2	32.0	22.1	74.7	52.8	91.3	72.4	59.1	26.0	31.5	50.2	90.2
26.9	82.2	29.2	34.6	52.0	48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4
30.2	64.9	32.7	18.5	59.5	31.0	81.2	76.2	52.4	35.1	16.2	18.5	100.0
45.1	66.7	45.3	36.5	74.1	52.8	66.5	66.7	76.1	47.2	25.6	44.0	59.2
18.1	100.0	18.1	28.6	69.4	46.1	87.5	11.2	58.3	63.9	11.1	52.6	100.0
22.0	80.3	22.3	30.6	33.3	22.6	45.4	22.4	31.2	22.9	10.5	27.3	50.0
18.9	99.2	27.7	58.9	23.6	87.5	48.7	44.9	49.0	57.4	14.6	28.7	32.6
38.4	59.2	26.0	42.3	56.7	60.2	63.8	84.9	57.6	59.6	24.1	44.7	58.6
27.4	71.4	26.2	35.7	60.7	63.1	66.7	100.0	56.0	59.5	21.4	42.5	50.0
46.3	31.9	50.1	36.9	60.9	63.4	80.1	73.5	54.8	43.9	13.1	38.0	84.5
49.0	100.0	33.3	71.2	59.7	59.8	78.7	86.2	59.4	45.2	17.9	49.2	77.8
25.0	70.8	0.0	50.5	62.5	65.0	12.5	64.5	75.0	62.0	37.5	47.4	12.5
44.6	21.9	20.3	17.1	39.7	50.0	80.9	100.0	42.6	87.2	30.8	46.7	68.0
65.8	73.7	29.6	35.6	47.4	39.3	75.8	36.2	50.3	21.1	21.1	31.9	81.5
69.1	90.2	56.3	42.7	89.4	66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0
62.8	91.8	31.1	47.8	58.3	64.1	67.9	91.4	44.2	73.8	28.7	79.1	67.6
57.4	53.2	32.0	22.1	74.7	52.8	91.3	72.4	59.1	26.0	31.5	50.2	90.2
26.9	82.2	29.2	34.6	52.0	48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4
30.2	64.9	32.7	18.5	59.5	31.0	81.2	76.2	52.4	35.1	16.2	18.5	100.0
45.1	66.7	45.3	36.5	74.1	52.8	66.5	66.7	76.1	47.2	25.6	44.0	59.2
18.1	100.0	18.1	28.6	69.4	46.1	87.5	11.2	58.3	63.9	11.1	52.6	100.0
22.0	80.3	22.3	30.6	33.3	22.6	45.4	22.4	31.2	22.9	10.5	27.3	50.0
18.9	99.2	27.7	58.9	23.6	87.5	48.7	44.9	49.0	57.4	14.6	28.7	32.6
38.4	59.2	26.0	42.3	56.7	60.2	63.8	84.9	57.6	59.6	24.1	44.7	58.6
27.4	71.4	26.2	35.7	60.7	63.1	66.7	100.0	56.0	59.5	21.4	42.5	50.0
46.3	31.9	50.1	36.9	60.9	63.4	80.1	73.5	54.8	43.9	13.1	38.0	84.5
49.0	100.0	33.3	71.2	59.7	59.8	78.7	86.2	59.4	45.2	17.9	49.2	77.8
25.0	70.8	0.0	50.5	62.5	65.0	12.5	64.5	75.0	62.0	37.5	47.4	12.5
44.6	21.9	20.3	17.1	39.7	50.0	80.9	100.0	42.6	87.2	30.8	46.7	68.0
65.8	73.7	29.6	35.6	47.4	39.3	75.8	36.2	50.3	21.1	21.1	31.9	81.5
69.1	90.2	56.3	42.7	89.4	66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0
62.8	91.8	31.1	47.8	58.3	64.1	67.9	91.4	44.2	73.8	28.7	79.1	67.6
57.4	53.2	32.0	22.1	74.7	52.8	91.3	72.4	59.1	26.0	31.5	50.2	90.2
26.9	82.2	29.2	34.6	52.0	48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4
30.2	64.9	32.7	18.5	59.5	31.0	81.2	76.2	52.4	35.1	16.2	18.5	100.0
45.1	66.7	45.3	36.5	74.1	52.8	66.5	66.7	76.1	47.2	25.6	44.0	59.2
18.1	100.0	18.1	28.6	69.4	46.1	87.5	11.2	58.3	63.9	11.1	52.6	100.0
22.0	80.3	22.3	30.6	33.3	22.6	45.4	22.4	31.2	22.9	10.5	27.3	50.0
18.9	99.2	27.7	58.9	23.6	87.5	48.7	44.9	49.0	57.4	14.6	28.7	32.6
38.4	59.2	26.0	42.3	56.7	60.2	63.8	84.9	57.6	59.6	24.1	44.7	58.6
27.4	71.4	26.2	35.7	60.7	63.1	66.7	100.0	56.0	59.5	21.4	42.5	50.0
46.3	31.9	50.1	36.9	60.9	63.4	80.1	73.5	54.8	43.9	13.1	38.0	84.5
49.0	100.0	33.3	71.2	59.7	59.8	78.7	86.2	59.4	45.2	17.9	49.2	77.8
25.0	70.8	0.0	50.5	62.5	65.0	12.5	64.5	75.0	62.0	37.5	47.4	12.5
44.6	21.9	20.3	17.1	39.7	50.0	80.9	100.0	42.6	87.2	30.8	46.7	68.0
65.8	73.7	29.6	35.6	47.4	39.3	75.8	36.2	50.3	21.1	21.1	31.9	81.5
69.1	90.2	56.3	42.7	89.4	66.5	68.5	78.7	64.6	41.1	33.3	50.3	100.0
62.8	91.8	31.1	47.8	58.3	64.1	67.9	91.4	44.2	73.8	28.7	79.1	67.6
57.4	53.2	32.0	22.1	74.7	52.8	91.3	72.4	59.1	26.0	31.5	50.2	90.2
26.9	82.2	29.2	34.6	52.0	48.0	65.9	44.3	53.4	45.3	15.6	35.6	68.4