



Change ahead

Experience and awareness of climate change in Africa

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Introduction

Climate change is “the defining development challenge of our time,” and Africa the continent most vulnerable to its consequences, according to the African Union (2015) and the United Nations (UN Environment, 2019). Farmers in Uganda waiting endlessly for rain (URN, 2019), cyclone survivors in Mozambique and Zimbabwe digging out of the mud and burying their dead (Associated Press, 2019) – these images bring home what changing climate and increasingly extreme weather conditions may mean for everyday Africans.

Long-term changes in temperatures and rainfall patterns are a particular menace to Africa, where agriculture forms the economic backbone of development priorities such as food security and poverty eradication (Food and Agriculture Organization, 2018). As an issue, “climate change” per se does not register among the “most important problems” that Africans surveyed by Afrobarometer want their governments to address (see Coulibaly, Silwé, & Logan, 2018). But concerns about the effects of climate change may be embedded in some of the other priorities identified, including water supply (cited by 24% of respondents), food shortages (18%), and agriculture (17%). And progress in addressing these priorities may be seriously impeded by a changing climate. African countries dominate the bottom ranks in the Notre Dame Global Adaptation Initiative (ND-GAIN) Index (2019), meaning they are the world’s countries most vulnerable to and least prepared for climate change.¹

Despite the continent’s minuscule contribution to the greenhouse gas emissions that cause climate change, most African countries have willingly signed on to international agreements to fight it, including the United Nations’ Framework Convention on Climate Change, the Kyoto Protocol, and the 2016 Paris Agreement on Climate Change (United Nations, 2019). The Paris Agreement mobilizes worldwide action to limit further temperature increases and to strengthen the ability of countries to deal with the impacts of climate change, including a commitment from developed countries to allocate \$100 billion by 2020 for climate adaptation and mitigation needs of developing countries (Munang & Mgendi, 2017; UN Climate Change, 2018).

In March 2019, policymakers and key stakeholders from all 54 African countries gathered in Accra for Africa Climate Week 2019 to lay plans to be presented at the UN Climate Action Summit in New York in September (UN Climate Change, 2019). The United Nations has summed up its pressing demand for climate action in its Sustainable Development Goal No. 13: “Take urgent action to combat climate change and its impacts,” calling on countries to integrate climate-change measures into national policies and strategies, strengthen resilience to climate-related hazards and natural disasters, and build awareness and capacity for early warning and impact reduction (United Nations Development Programme, 2019).

Many African governments have laid out their countries’ vulnerabilities in agriculture, water resources, food security, livelihoods, and other sectors and have incorporated climate-change mitigation in national plans (see, for example, Uganda’s Ministry of Finance, Planning and Economic Development, 2018, and Ministry of Water and Environment, 2015).

But building climate resilience will require a committed and coordinated effort (Busby, Smith, White, & Strange, 2012), backed by significant resources and a population that understands and supports the need for prioritizing climate change. How do ordinary Africans see climate change? Does talk of urgent action align with their experiences and needs?

Findings from Afrobarometer’s latest round of public-opinion surveys across Africa show a keen awareness of climate change in some countries – often backed by personal observation – but the opposite in others. Across the continent, among people who have heard of climate change, a large majority say it is making life worse and needs to be stopped. But four in 10 Africans are unfamiliar with the concept of climate change – even, in

¹ Only six African countries rank among the 100 least-vulnerable, best-prepared countries in the world: Mauritius (at No. 50) followed by Morocco, South Africa, Tunisia, the Seychelles, and Botswana.

some cases, if they have personally observed detrimental changes in weather patterns. And only about three in 10 are fully “climate change literate,” combining awareness of climate change with basic knowledge about its causes and negative effects. Groups that are less familiar with climate change – and might be good targets for awareness-raising and advocacy in building a popular base for climate-change action – include people working in agriculture, rural residents, women, the poor, and the less-educated.

Afrobarometer survey

Afrobarometer directs a pan-African, nonpartisan research network that conducts public attitude surveys on democracy, governance, economic conditions, and related issues in African countries. Seven rounds of surveys were completed in up to 38 countries between 1999 and 2018. Round 8 surveys in 2019/2020 are planned in at least 35 countries. Interested readers may follow our releases, including our Pan-Africa Profiles series of Round 7 cross-country analyses, at #VoicesAfrica and sign up for our distribution list at www.afrobarometer.org.

Afrobarometer conducts face-to-face interviews in the language of the respondent's choice with nationally representative samples that yield country-level results with margins of error of +/-2 to +/-3 percentage points at a 95% confidence level.

This Pan-Africa Profile relies on data from 45,823 interviews completed in 34 countries between September 2016 and September 2018 (see Appendix Table A.1 for a list of countries and fieldwork dates). The countries covered are home to almost 80% of the continent's population. The data are weighted to ensure nationally representative samples. When reporting multi-country findings such as regional or Africa-wide averages, each country is weighted equally (rather than in proportion to population size).

For a list of published dispatches on perceptions of climate change in specific countries, please see Appendix Table A.2.

Key findings

- By more than 2-to-1, ordinary Africans say climate conditions for agricultural production have become worse in their region over the past decade. Overwhelming majorities see worse weather for growing crops in Uganda (85%), Malawi (81%), and Lesotho (79%).
- In most countries, the main culprit is more severe drought. But in Malawi, Madagascar, and eSwatini, most citizens say both droughts and flooding have gotten worse.
- Almost six in 10 Africans (58%) have heard of climate change, including more than three-fourths of Mauritians (83%), Malawians (78%), and Ugandans (78%). South Africa (41%) is one of just five countries where fewer than half of citizens have heard of climate change.
- Groups that are less familiar with the concept of climate change include rural residents, women, the poor, and the less-educated, as well as people who work in agriculture.

Among Africans who have heard of climate change:

- About two-thirds (63%) associate the term with negative changes in weather patterns, compared to about one-third who link it with positive (17%) or other (15%) changes.
- About two-thirds blame climate change on human activity (52%) or on human activity combined with natural processes (16%). More than one in four (27%) think climate change is caused by natural processes alone.

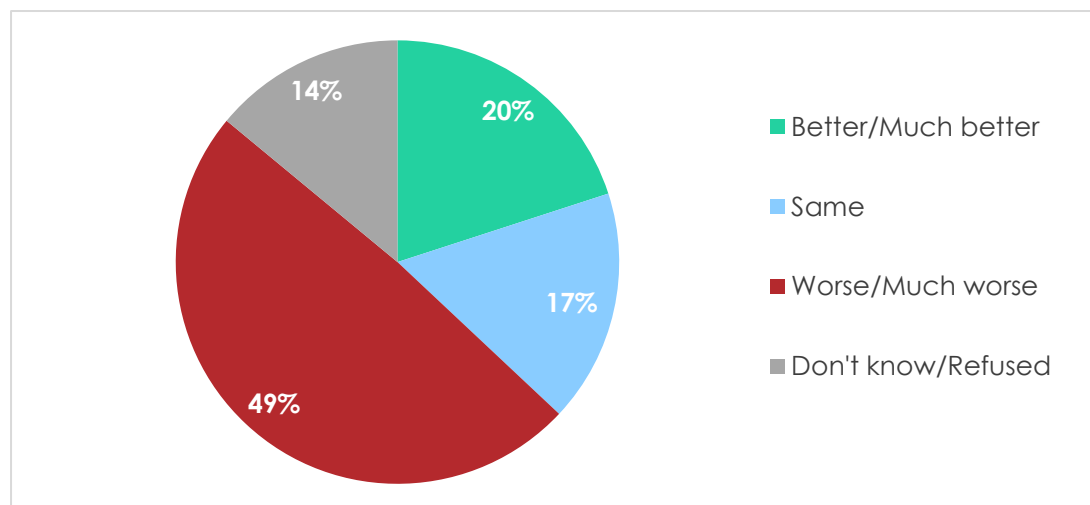
- About one in four Africans (28%) are fully “climate change literate,” that is, they have heard of climate change, they understand it to have negative consequences, and they recognize it as being caused at least in part by human activity. Mauritians lead the way at 57% – the only country where a majority is climate change literate. Fewer than one in five are climate change literate in six countries (Liberia, Mozambique, Namibia, Niger, South Africa, and Tunisia).
- Two-thirds (67%) say climate change is making life in their countries worse, reaching a high of 89% in East Africa, almost twice as many as in North Africa (46%).
- Seven in 10 (71%) say climate change needs to be stopped, and about half (51%) think ordinary people can do at least “a little bit” to help. But in Liberia (26%), Sudan (28%), and Niger (33%), only one-third or less think ordinary people can make any difference.

Changing climate conditions for agricultural production

Before mentioning “climate change,” Afrobarometer asked survey respondents about their own observations of changes in weather patterns in their region, particularly with regard to agricultural production.

About half (49%) of Africans who were surveyed say climate conditions for agricultural production have gotten “worse” or “much worse” over the past 10 years. Only two in 10 (20%) say climate conditions have improved, while 17% say they have stayed about the same (Figure 1).

Figure 1: Changes in climate conditions for agricultural production | 34 countries | 2016/2018



Respondents were asked: *In your experience, would you say climate conditions for agricultural production in your area have gotten better, gotten worse, or stayed about the same over the last 10 years, or haven't you heard enough to say?*

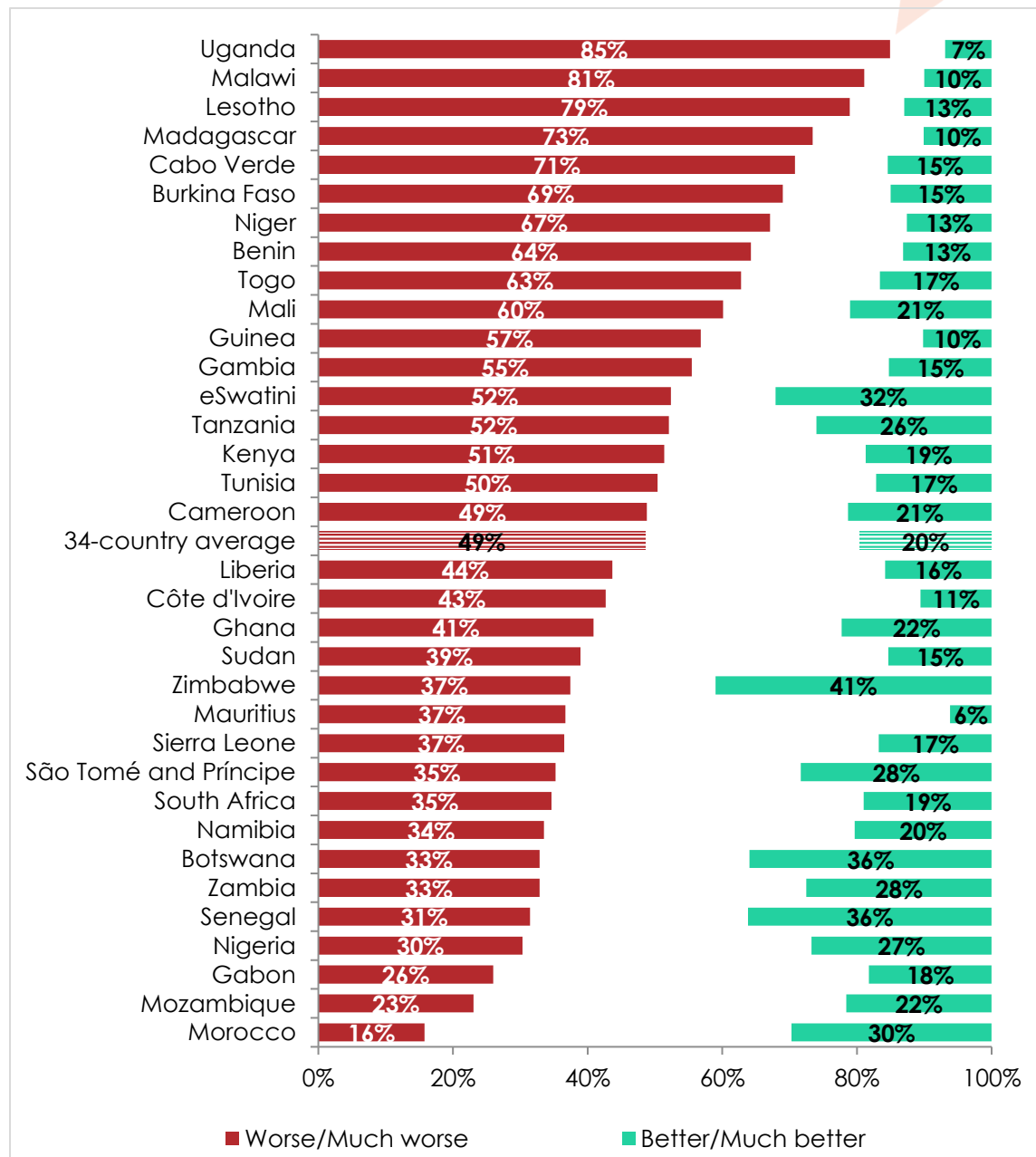
These averages across 34 countries hide vast differences between countries and between regions. Overwhelming majorities see worse weather patterns for growing crops in Uganda (85%), Malawi (81%), and Lesotho (79%), while fewer than one in four Moroccans (16%) and Mozambicans (23%)² agree (Figure 2).

² Survey fieldwork in Mozambique and Zimbabwe was conducted before the countries were hit by deadly cyclones Idai and Kenneth in 2019. We do not know how, if at all, specific experiences of extreme weather might affect people’s assessments of long-term changes in climate.

However, in 30 of the 34 surveyed countries, pluralities report that climate conditions have worsened rather than improved; the exceptions are Morocco, Senegal, Botswana, and Zimbabwe, where between 30% and 41% say weather conditions have gotten better.

By region,³ East Africans (63%) are almost twice as likely as North Africans (35%) to say climate conditions have worsened.

Figure 2: Changes in climate conditions for agricultural production | 34 countries
| 2016/2018

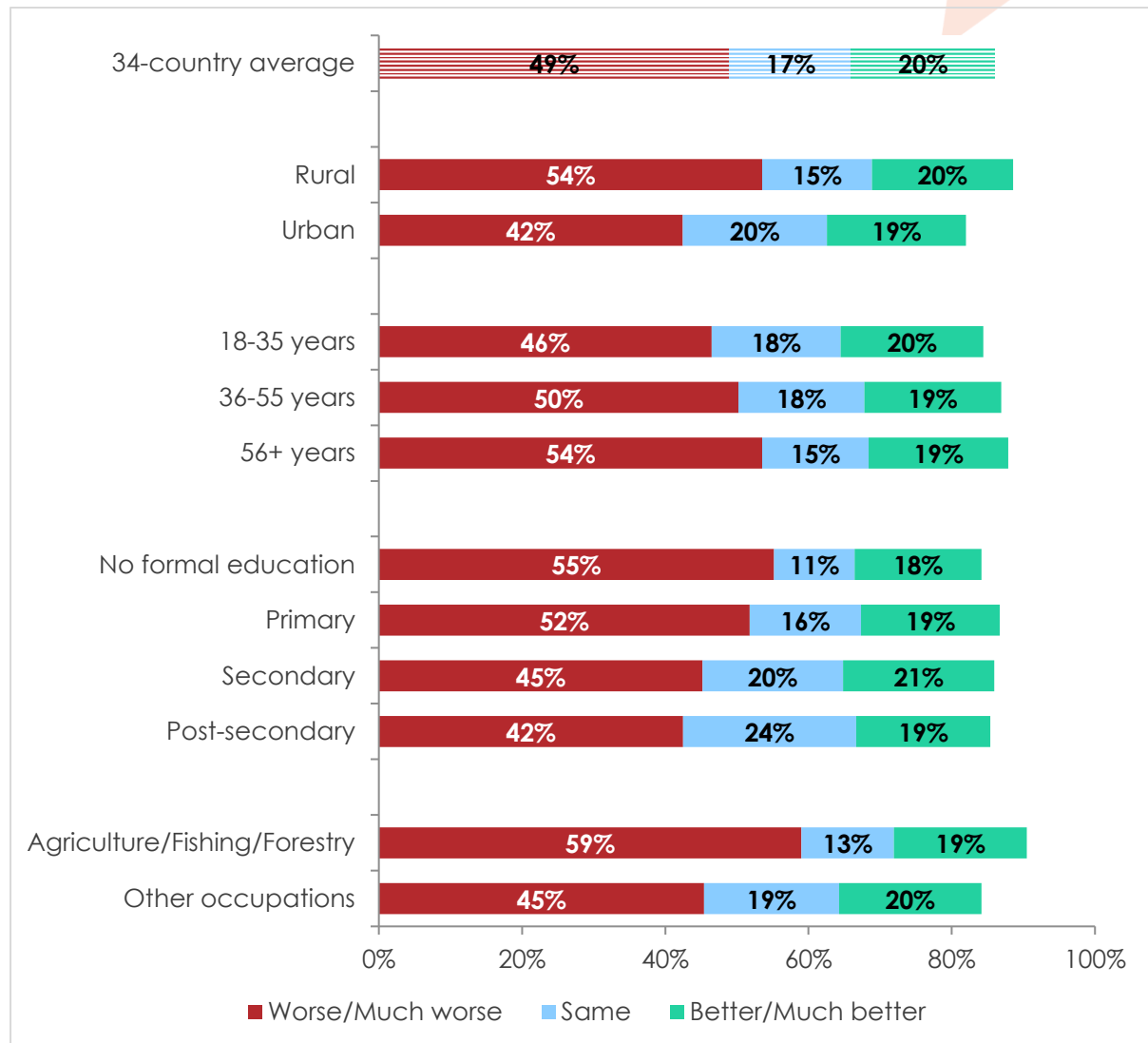


Respondents were asked: In your experience, would you say climate conditions for agricultural production in your area have gotten better, gotten worse, or stayed about the same over the last 10 years, or haven't you heard enough to say?

³ Regions: North Africa (Morocco, Sudan, Tunisia), Central Africa (Cameroon, Gabon, São Tomé and Príncipe), Southern Africa (Botswana, eSwatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Zambia, Zimbabwe), East Africa (Kenya, Tanzania, Uganda), West Africa (Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Liberia, Niger, Nigeria, Mali, Senegal, Sierra Leone, Togo)

Tellingly, people engaged in occupations related to agriculture (farming, fishing, or forestry, about 24% of respondents) are more likely to report negative weather impacts on agricultural production (59% on average across 34 countries) than those who are not (45%). Similarly, more rural residents (54%) than urban dwellers (42%) observe worse weather patterns for agriculture, and older respondents are more likely than youth to agree (Figure 3).

Figure 3: Changes in climate conditions for agricultural production | by socio-demographic group | 34 countries | 2016/2018

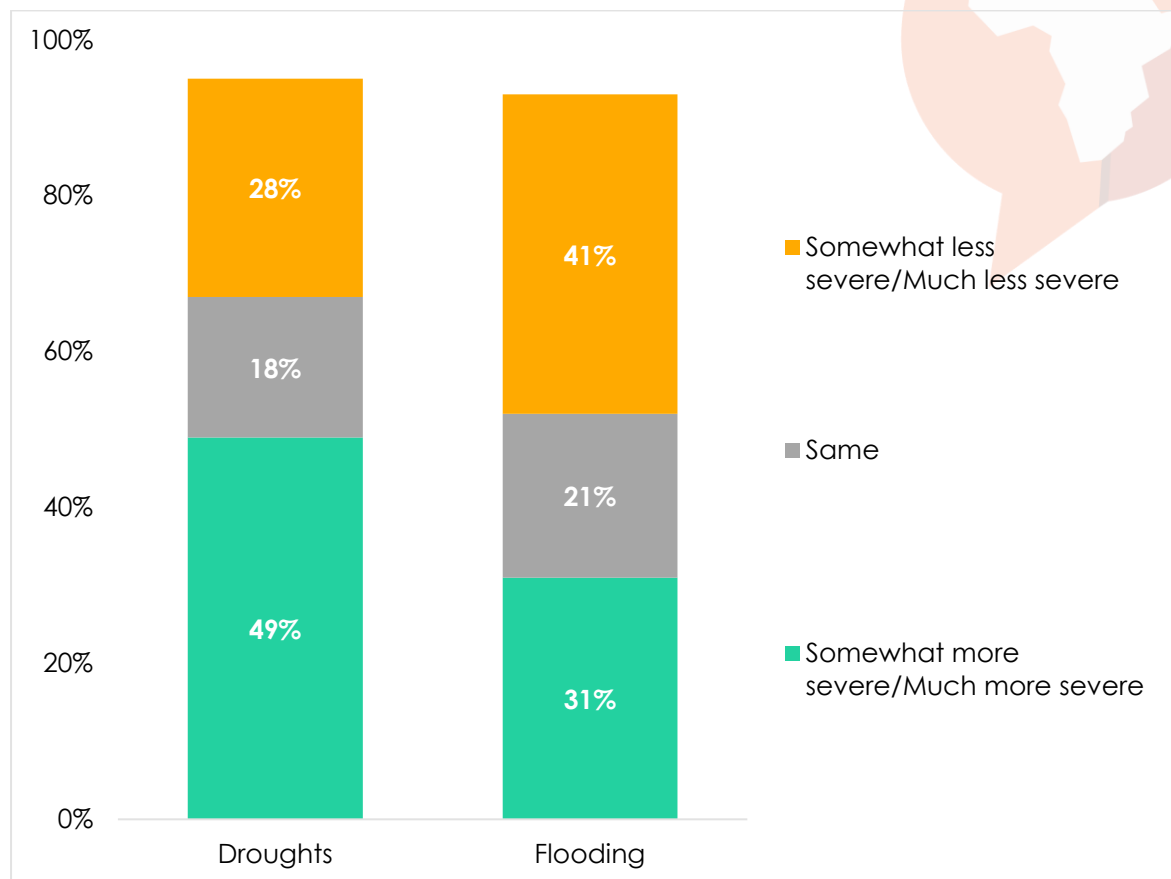


Respondents were asked: *In your experience, would you say climate conditions for agricultural production in your area have gotten better, gotten worse, or stayed about the same over the last 10 years, or haven't you heard enough to say?*

Extreme climate events

When asked about specific changes in the severity of extreme weather events, about half (49%) of ordinary Africans say droughts have become "somewhat" or "much" more severe in their region over the past decade, while 28% say they have become less severe. In contrast, a plurality (41%) report that floods are less severe, while about one in three (31%) say they are worse (Figure 4). One in five say that both droughts and floods have gotten worse (21%), but a similar number (19%) say that both are less severe than in the past.

Figure 4: Severity of droughts and flooding | 33 countries* | 2016/2018



Respondents were asked: *In your experience, over the past 10 years, has there been any change in the severity of the following events in the area where you live? Have they become more severe, less severe, or stayed about the same?*

Droughts?
Flooding?

But again, looking at individual countries reveals a more complex picture.

The top seven countries reporting deteriorating climate conditions for agricultural production also top the list of those where respondents report worsening droughts, led by Uganda (87%), Malawi (84%), Madagascar (81%), and Lesotho (79%). Morocco (18%) is again near the bottom, joined now by Sierra Leone (14%).

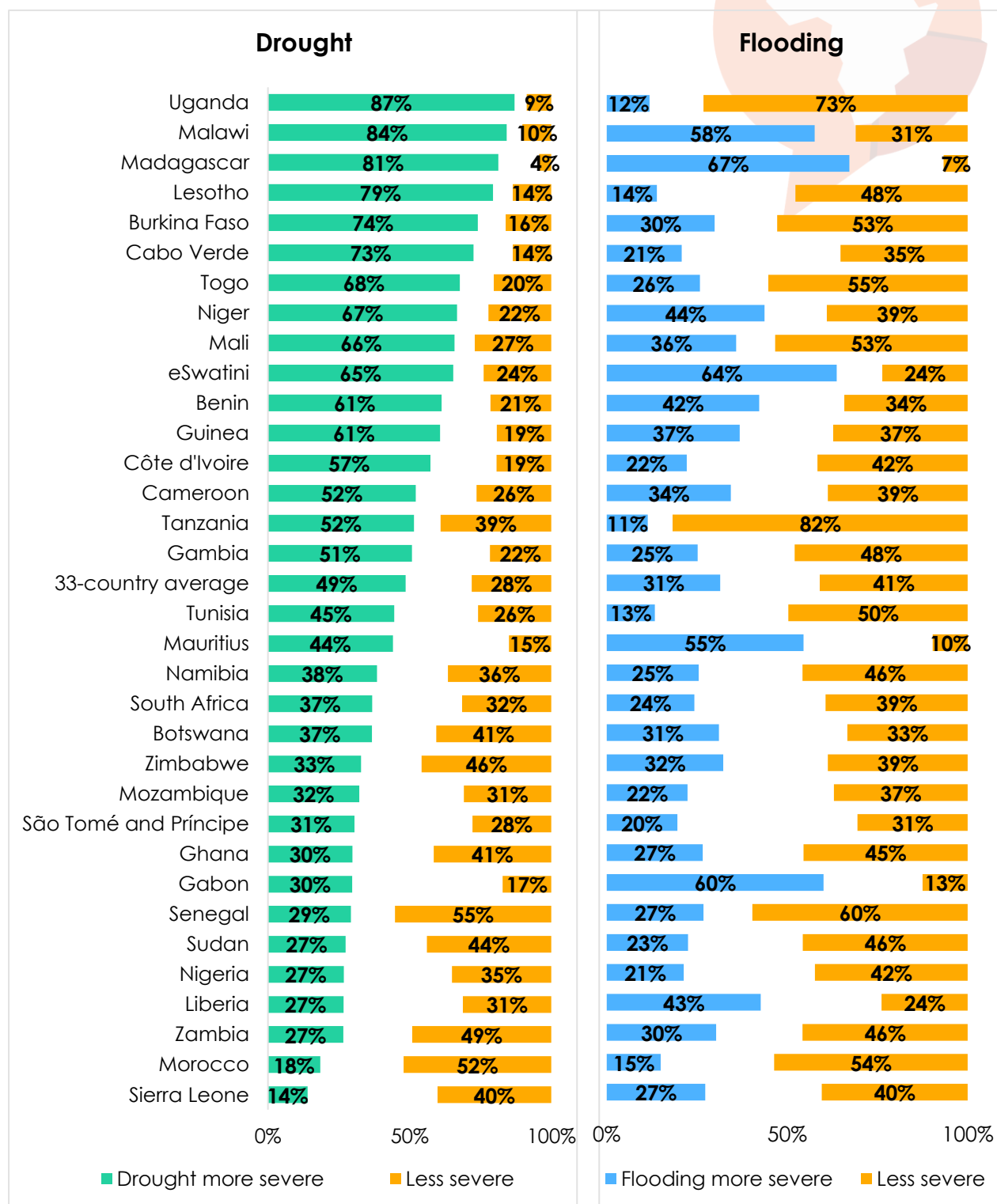
Worsening floods, meanwhile, are of greatest concern in Madagascar (67%), eSwatini (64%), Gabon (60%), Malawi (58%), and Mauritius (55%).

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Putting responses on increasing severity of droughts and flooding side by side, as in Figure 5, reveals that some countries are being hit primarily by worsening droughts (e.g. Uganda, Lesotho, and Cabo Verde), one is experiencing primarily worsening flooding (Gabon), and many others report the double onslaught of both worse drought

and worse flooding (e.g. Malawi, Madagascar, and eSwatini). However, popular reports are not uniformly negative. Majorities in both Morocco and Senegal report that *both* droughts and floods are *less* severe than in the past, and pluralities do the same in six other countries (Botswana, Ghana, Sierra Leone, Sudan, Zambia, and Zimbabwe).

Figure 5: Increasing severity of droughts and floods | 33 countries* | 2016/2018



Respondents were asked: In your experience, over the past 10 years, has there been any change in the severity of the following events in the area where you live? Have they become more severe, less severe, or stayed about the same?

Droughts?

Flooding?

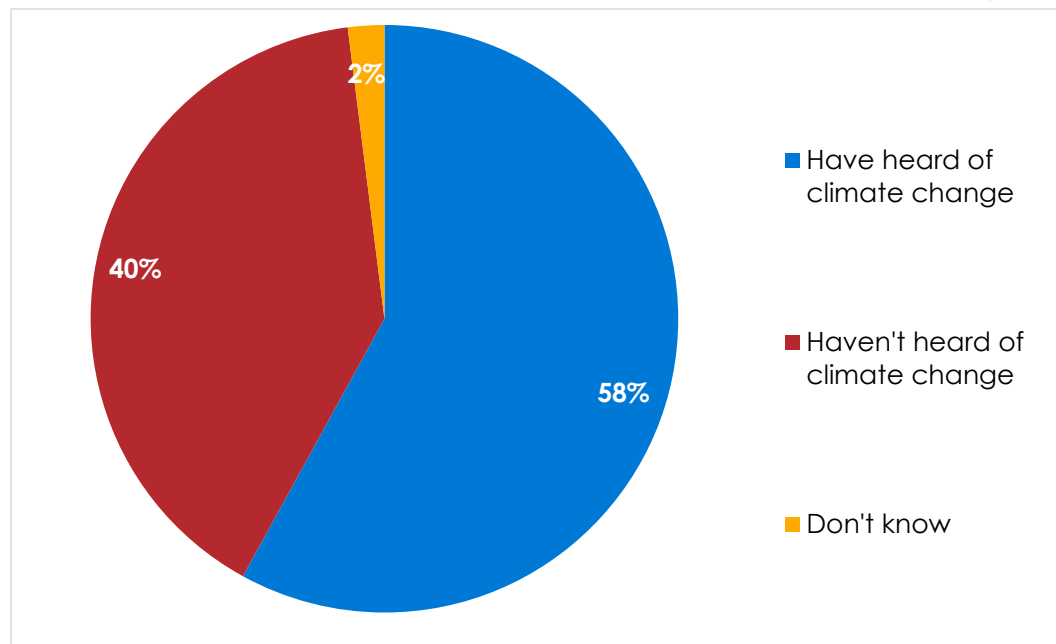
(% who say "somewhat more severe" or "much more severe")

(* This question was not asked in Kenya.)

Have Africans heard of climate change?

While most respondents offer their personal observations about changes in weather events, not everyone has heard of what may be the underlying cause: climate change. When we follow our questions about changing climate and weather patterns with a direct query about whether respondents have ever heard of “climate change,”⁴ about six in 10 (58%) say they are familiar with the concept, while four in 10 say they have never heard the term (Figure 6).

Figure 6: Awareness of climate change | 34 countries | 2016/2018



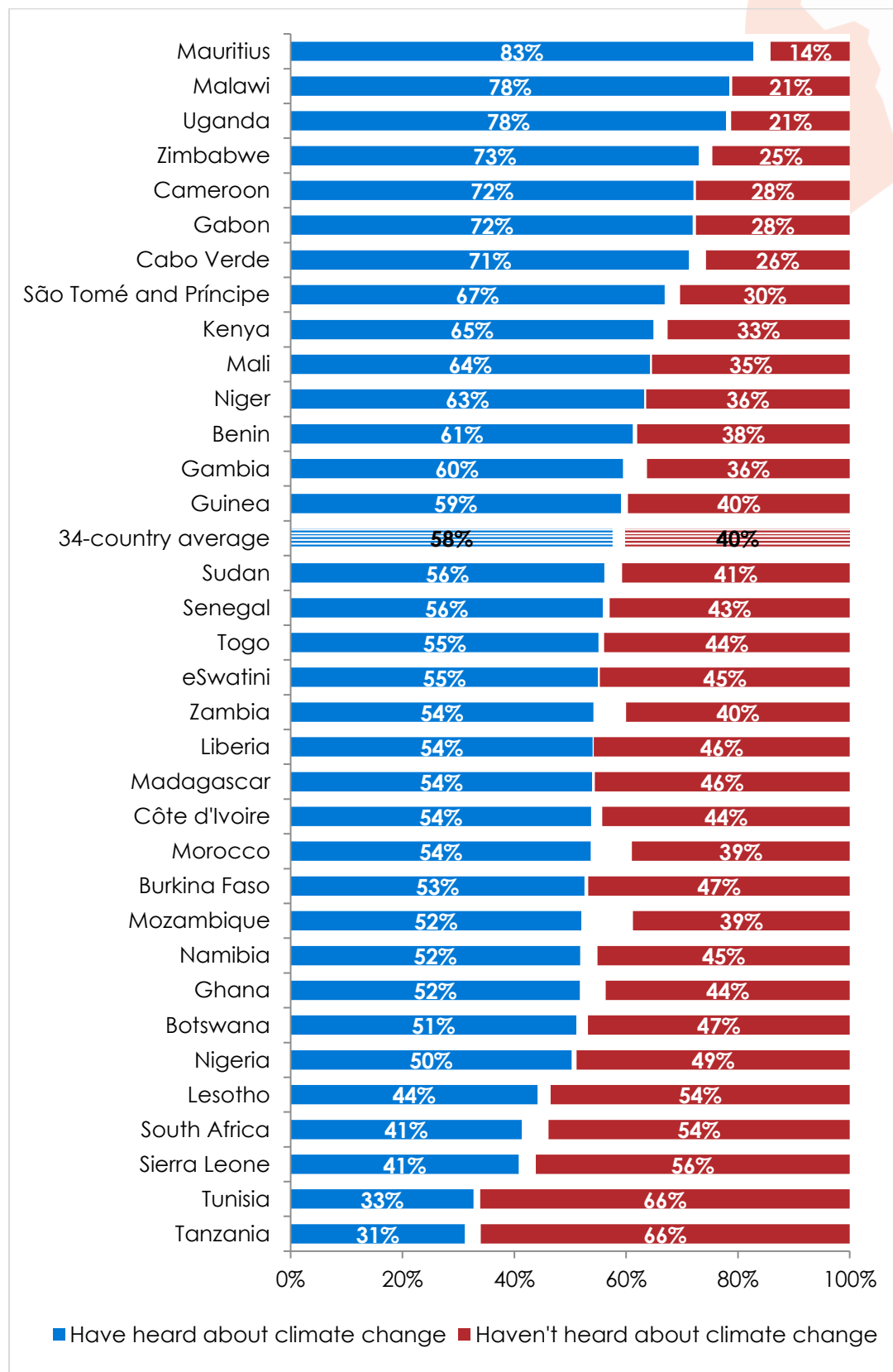
Respondents were asked: *Have you heard about climate change, or haven't you had the chance to hear about this yet?*

In 29 out of 34 surveyed countries, at least half of citizens are familiar with climate change, including more than three-fourths of Mauritians (83%), Malawians (78%), and Ugandans (78%). South Africa, despite being one of the most educated countries on the continent, is one of just five where fewer than half of citizens (41%) have heard of climate change, a group that also includes Tanzania (31%), Tunisia (33%), Sierra Leone (41%), and Lesotho (44%) (Figure 7).

We might wonder whether there is a direct correlation between the perception that climate conditions for agriculture are getting worse and popular awareness of climate change, but this does not appear to be the case – the correlation is very weak and not statistically significant. Malawi and Uganda stand out as two countries where high proportions of citizens believe climate conditions for agriculture are getting worse and awareness of climate change is widespread (Figure 8). But in Lesotho, by contrast, almost as many perceive worsening climate conditions, but awareness of climate change is at one of the lowest levels observed. On the other hand, Mauritians and Gabonese both report high levels of awareness of climate change as an issue, but much more modest levels of concern about agricultural conditions. Of course, this could reflect the fact that it is not only agriculture that will be affected by climate change but also coastal areas, tourism, and other sectors.

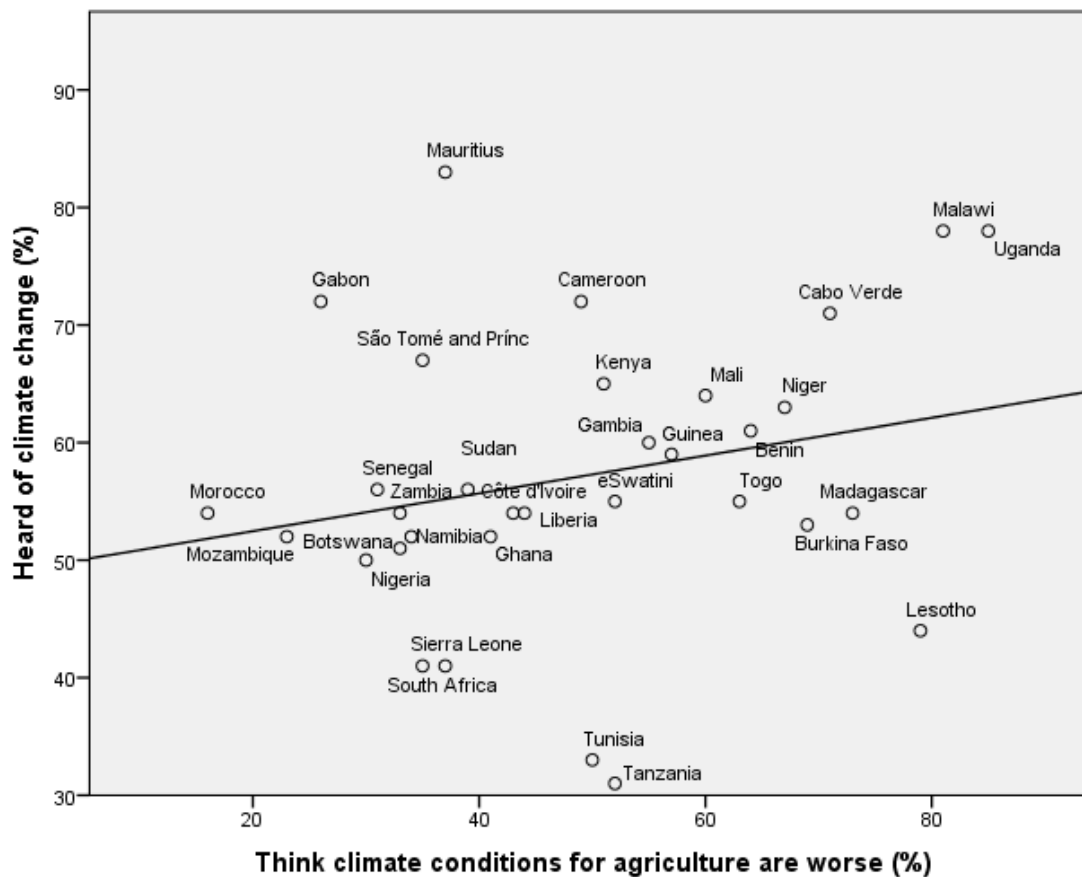
⁴ The term “climate change” was translated into national and local languages in which the interviews were conducted.

Figure 7: Awareness of climate change | 34 countries | 2016/2018



Respondents were asked: Have you heard about climate change, or haven't you had the chance to hear about this yet?

Figure 8: Worsening agricultural conditions and awareness of climate change
 | 34 countries | 2016/2018



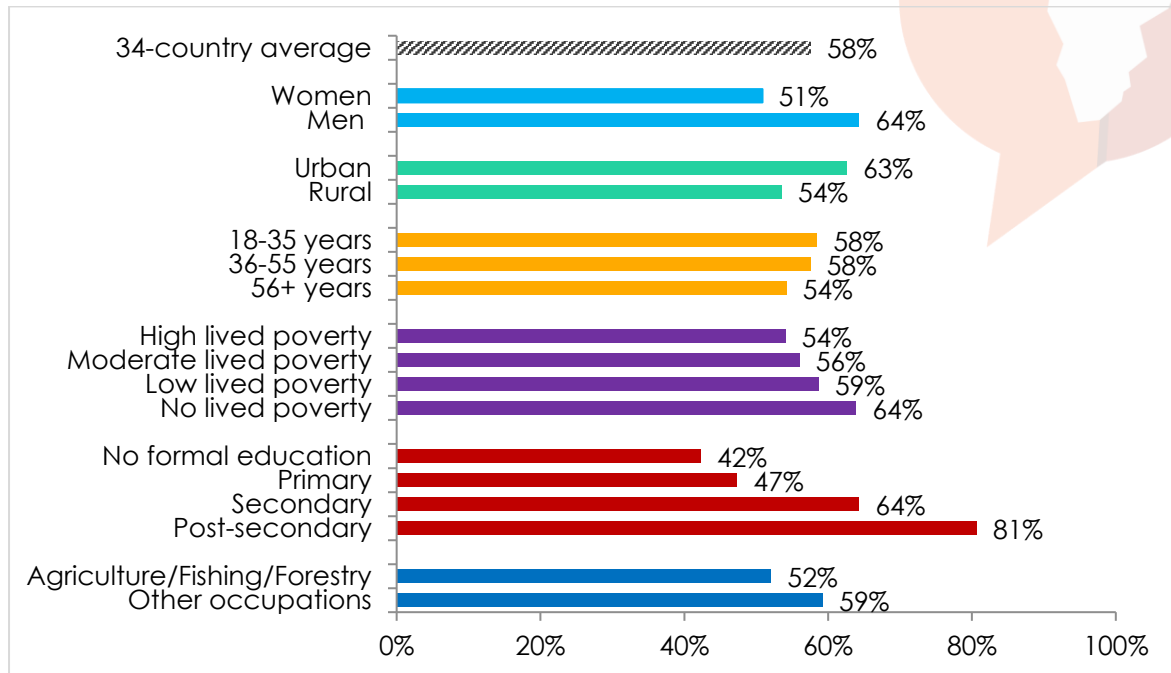
Awareness of climate change varies across demographic and social categories (Figure 9). Groups that are less familiar with the concept include women (51% vs. 64% of men), rural residents (54% vs. 63% of urbanites), and those who are economically less well off (54% among the poorest vs. 64% among the wealthiest).⁵ Not surprisingly, the largest gap is between those who have no formal education (42%) and those with post-secondary qualifications (81%). Citizens who work in agriculture, fishing, and forestry are somewhat less likely to be aware of climate change than those in other occupations (52% vs. 59%).

News consumption also seems to make a difference. Exposure to news from any source is associated with substantially higher levels of awareness (Figure 10). Among those who never get news from any of five sources, only 40% have heard of climate change (not shown). But respondents who get news daily from the Internet (74%), social media (72%), and newspapers (72%) are substantially more likely to have heard of climate change than those who get daily news from television (65%) and radio (64%).

Such analyses at the country level may be useful for identifying good targets for education and information efforts. In Togo, for example, agricultural workers are considerably less likely to have heard of climate change than the rest of the population (41% vs. 60%), even though they are among people most likely to be affected (Adetou & Ahlin, 2019).

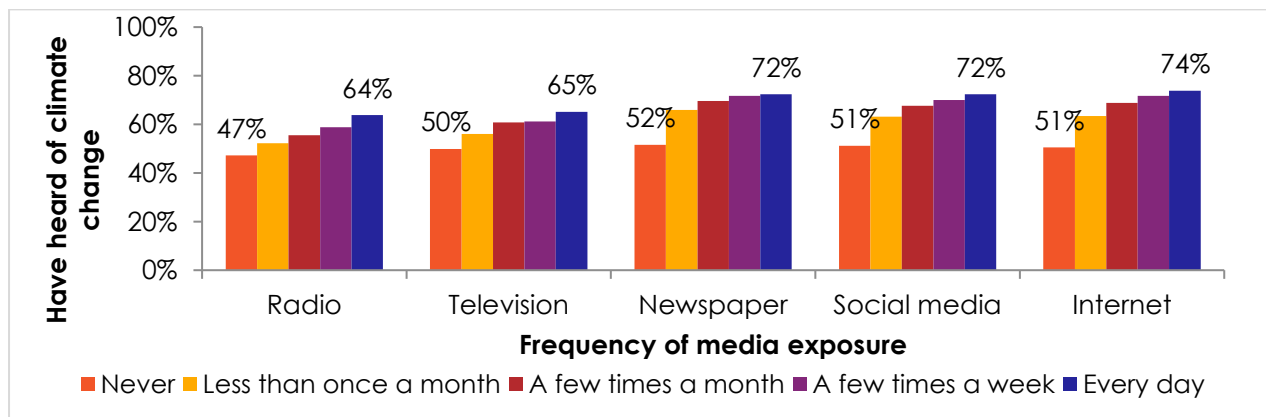
⁵ Afrobarometer's Lived Poverty Index (LPI) measures respondents' levels of material deprivation by asking how often they or their families went without basic necessities (enough food, enough water, medical care, enough cooking fuel, and a cash income) during the preceding year. For more on lived poverty, see Mattes, Dulani, & Gyimah-Boadi (2016).

Figure 9: Have heard of climate change | by socio-demographic group
| 34 countries | 2016/2018



Respondents were asked: Have you heard about climate change, or haven't you had the chance to hear about this yet? (% who have heard about climate change)

Figure 10: Awareness of climate change | by media exposure | 34 countries
| 2016/2018



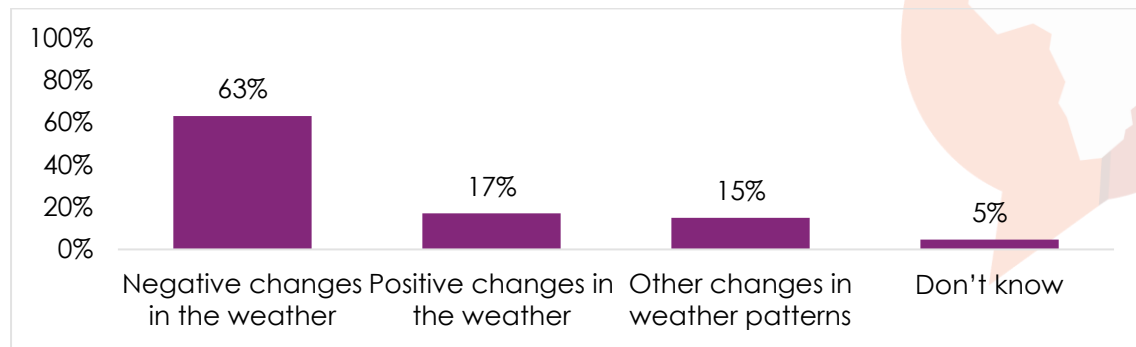
Respondents were asked:
How often do you get news from the following sources?
Have you heard about climate change, or haven't you had the chance to hear about this yet?
(% who have heard about climate change)

Understanding climate change

While having “heard of” climate change is a first step toward being informed, Afrobarometer explored popular understanding of the concept with a follow-up question: “What does the phrase ‘climate change’ mean to you?”

Among respondents who said they had heard of climate change, not quite two-thirds (63%) say the term refers to negative changes in the weather, “like more droughts, floods or extreme heat,” while one-third associate it with positive changes (17%) such as “better rainfall patterns or longer growing seasons” or “other changes in weather patterns” (15%) (Figure 11).

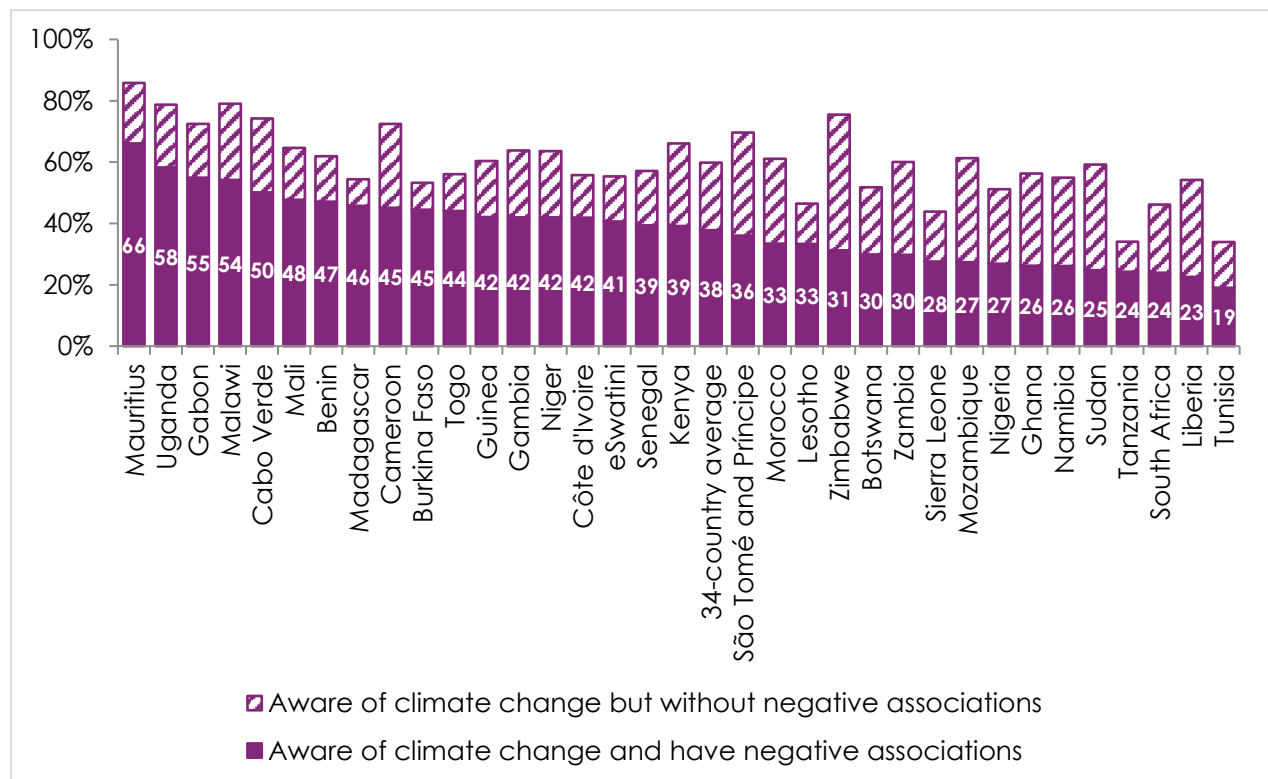
Figure 11: Meaning of 'climate change' | 34 countries | 2016/2018



Respondents who had heard of climate change were asked: What does the phrase "climate change" mean to you? (Respondents who had not heard of climate change are excluded)

On average, fewer than four in 10 Africans (38%) have a basic awareness of the downsides of climate change, i.e. they are both aware of climate change and understand that it has negative implications (solid bars in Figure 12). In some countries, most citizens who have heard of climate change associate it with negative changes in weather patterns. For example, in Madagascar, just 54% have heard of climate change, but of these, 84% associate it with negative changes, so a total of 46% of the population have both heard of climate change and associate it with negative changes. Understanding of the negative consequences of climate change is most widespread in Mauritius (66%), an island nation that may face especially severe consequences of climate change, followed by landlocked but vulnerable Uganda (58%), as well as Gabon (55%) and Malawi (54%).

Figure 12: Awareness of climate change and what it means | 34 countries | 2016/2018



Respondents were asked:

Have you heard about climate change, or haven't you had the chance to hear about this yet? (% "yes" is shown by the full bar, both solid and patterned)

If yes: What does the phrase "climate change" mean to you? (% of total population that has heard of climate change and has negative associations is shown by solid bars)

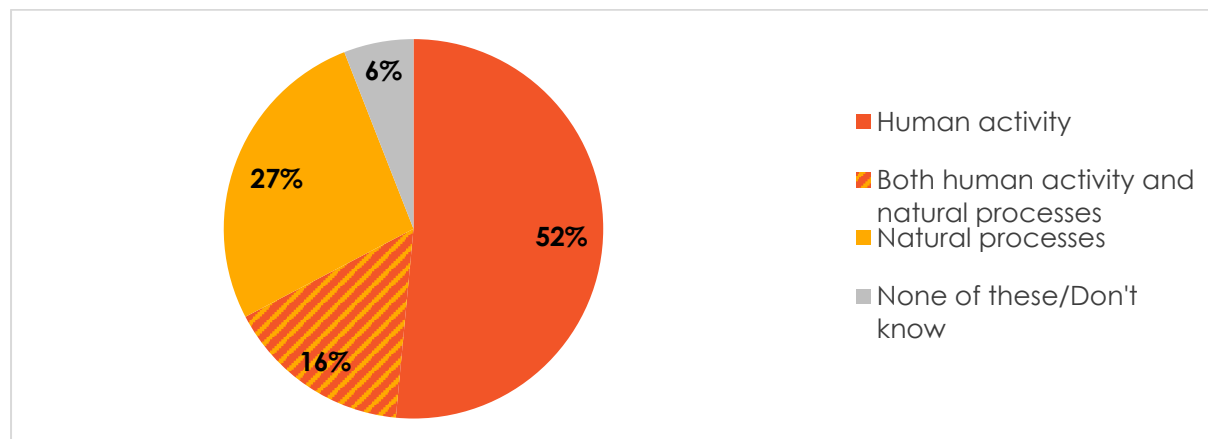
In contrast, in Zimbabwe, fully 75% have heard of climate change, but a low of just 41% of them associate it with negative outcomes, so only 31% of all citizens understand climate change as a potentially harmful phenomenon. Other countries where fewer than half of those aware of climate change have negative understandings of it include Liberia, Sudan, Mozambique, Ghana, and Namibia (see Appendix Figure A.1). As result, even in some of the most politically and socially influential countries on the continent, such as South Africa (24%), Ghana (26%), and Nigeria (27%), only about one in four citizens have this basic awareness, suggesting that climate-change activists have their work cut out for them in building a popular consensus for action on the issue. Overall, in 29 of the 34 surveyed countries, fewer than half of citizens have both heard of climate change and associate it with negative changes in weather patterns.

Causes of climate change

Scientists say the world's climate has always undergone changes associated with natural processes, such as volcanic eruptions and solar variations. But changes have become far more rapid and dangerous in recent decades as the burning of fossil fuels and other human activities have released billions of tons of carbon dioxide into the atmosphere (Intergovernmental Panel on Climate Change, 2014).

When ordinary Africans who have heard of climate change are asked what they think is its main cause, about two-thirds blame it on human activity alone (52%) or on human activity combined with natural processes (16%). More than one in four (27%) say natural causes alone are the main cause of climate change (Figure 13).

Figure 13: Main cause of climate change | 33 countries* | 2016/2018

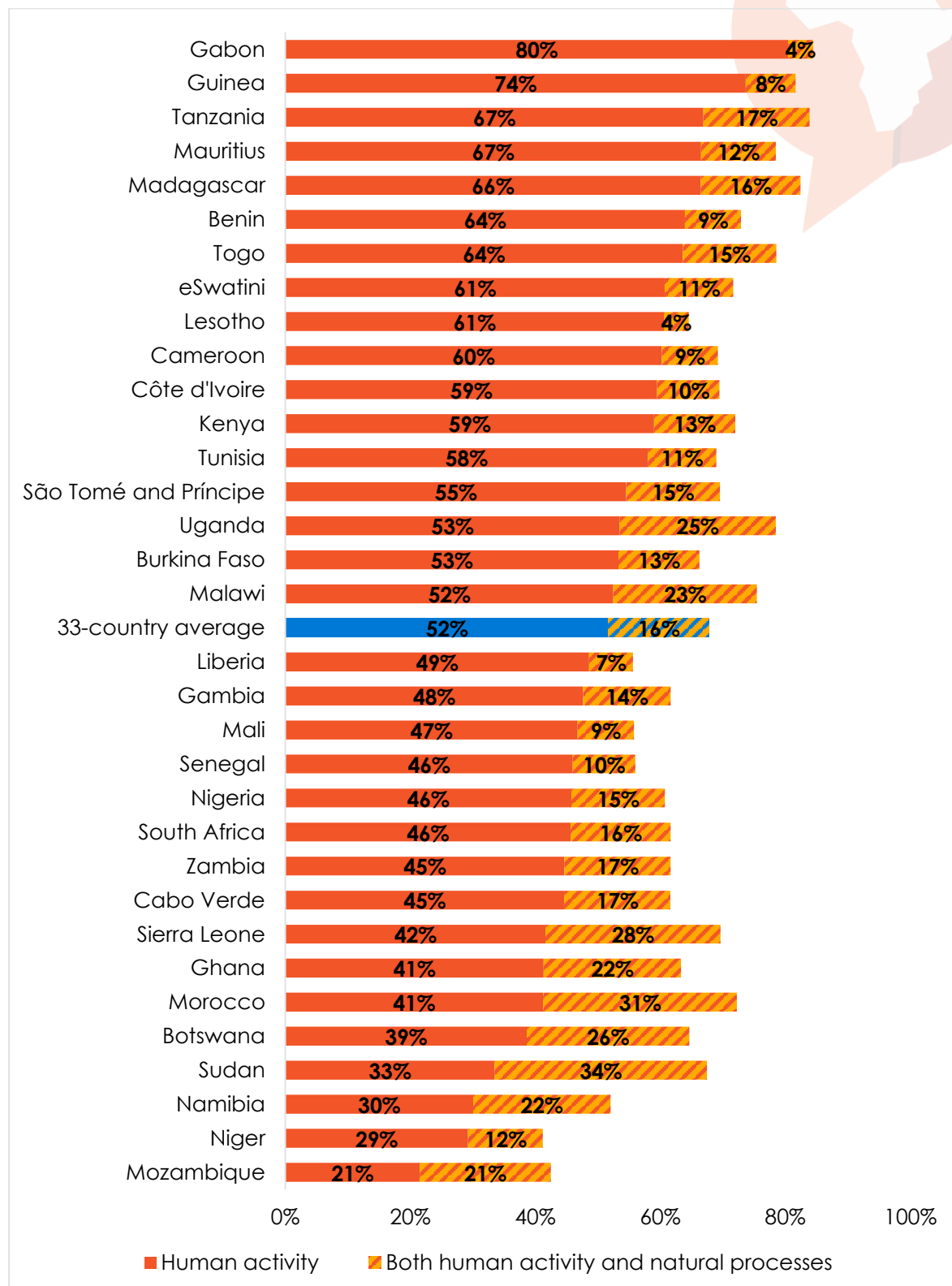


Respondents who had heard of climate change were asked: People have different ideas about what causes climate change. What about you, which of the following do you think is the main cause of climate, or haven't you heard enough to say? (Respondents who had not heard of climate change are excluded.) (*This question was not asked in Zimbabwe.)

But in 16 of 33 countries where this question was asked, fewer than half of those who have heard of climate change attribute it primarily to human activity (Figure 14). In Mozambique, only one in five (21%) blame human activity alone, while 43% say it is due to natural processes. One-third or fewer also cite human activity as the main cause in Sudan (33%), Namibia (30%), and Niger (29%).

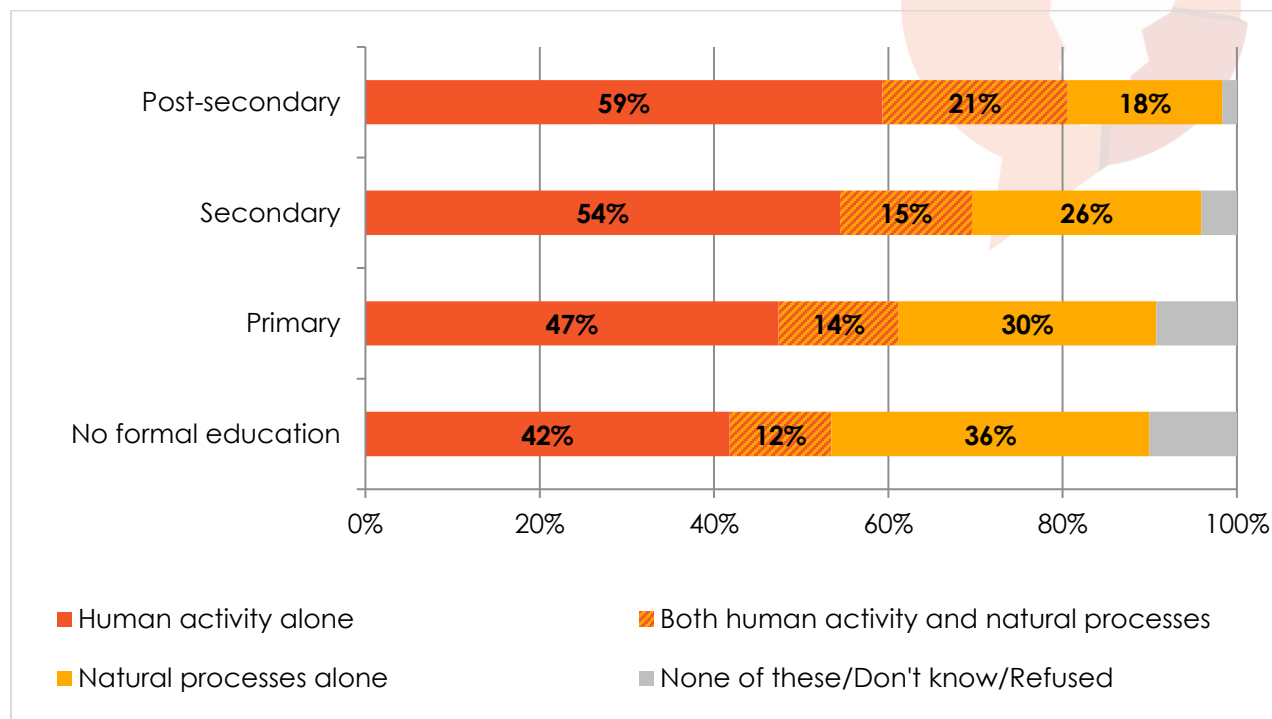
Education level is correlated with higher awareness of the human role in climate change. Among those with post-secondary education, 59% identify human activity as the primary driver, and 80% recognize it as at least partially responsible. Among those with no formal education, on the other hand, only 42% cite human activity as the main cause of climate change, and just 54% recognize it as playing at least some role (Figure 15).

Figure 14: Climate change caused by human activity | 33 countries* | 2016/2018



Respondents who had heard of climate change were asked: People have different ideas about what causes climate change. What about you, which of the following do you think is the main cause of climate, or haven't you heard enough to say? (Respondents who had not heard of climate change are excluded.) (* This question was not asked in Zimbabwe.)

Figure 15: Understanding of causes of climate change | by education level
| 33 countries* | 2016/2018



Respondents who had heard of climate change were asked: *People have different ideas about what causes climate change. What about you, which of the following do you think is the main cause of climate, or haven't you heard enough to say? (Respondents who had not heard of climate change are excluded.) (*This question was not asked in Zimbabwe.)*

“Climate change aware” vs. “climate change literate”

We saw above that on average across all countries, 58% of citizens have heard of climate change, and of those, about two-thirds (68%) understand that human activity plays a part in causing climate change and slightly fewer than two-thirds (63%) associate climate change with negative changes in weather patterns. We identify respondents who are not only aware of climate change, but who also understand both the human role in causation and the negative consequences, as the “climate change literate” population.⁶ We are not aware of recent data that would allow a comparison of “climate change literacy” levels in Africa with those, say, in Asia or the Americas. But increasing climate change literacy will likely be key to motivating governments in Africa and globally to step up their preparedness and their actions to respond to this growing challenge. And the findings here suggest that climate change activists have a great deal of work to do to further educate and engage African publics.

On average across 33 countries, 28% of citizens can be considered climate change literate. Mauritius (57%) is the only country where a majority share this basic understanding, although Gabonese (49%), Ugandans (46%), and Malawians (43%) all make a decent showing. But fewer than a quarter of adults are climate change literate in 14 countries, and the number does not top one-third in another nine countries (Figure 16).

⁶ This indicator of a basic understanding of climate change should not be confused with more ambitious concepts of “climate literacy” (see, for example, the U.S. Global Change Research Program’s *Climate Literacy: The Essential Principles of Climate Science*).

Figure 16: The 'climate change literate' | 33 countries* | 2016/2018

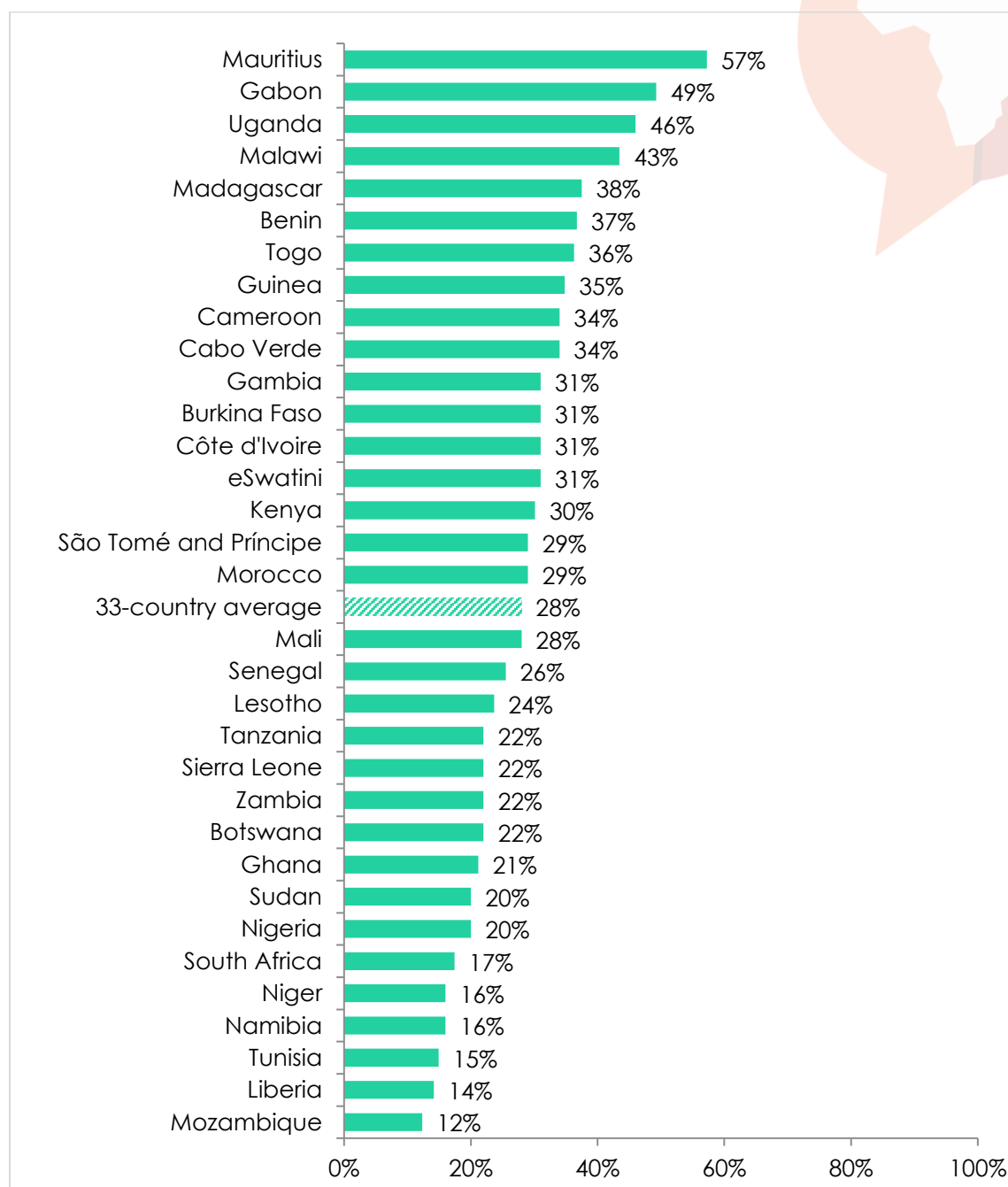


Figure shows % of respondents who are "climate change literate," meaning they not only have heard of climate change but also associate it with negative changes in weather patterns and know that human activity plays a part in causing it. (Not all relevant questions were asked in Zimbabwe.)

Are Afrobarometer's climate change literacy levels related either to climate change vulnerability or to governments' ability to respond to this challenge? To test this, we compare climate change literacy scores to the Notre Dame Global Adaptation Initiative (ND-GAIN) expert-generated climate change vulnerability and readiness scores. The full ND-Gain Index combines assessments of both a country's *vulnerability* to climate change – based on evaluations of exposure, sensitivity, and adaptive capacity – as well as its economic, governance, and social *readiness* to respond effectively.⁷ We compare climate change

⁷ For further information on the ND-GAIN Index, see <https://gain.nd.edu/our-work/country-index>.

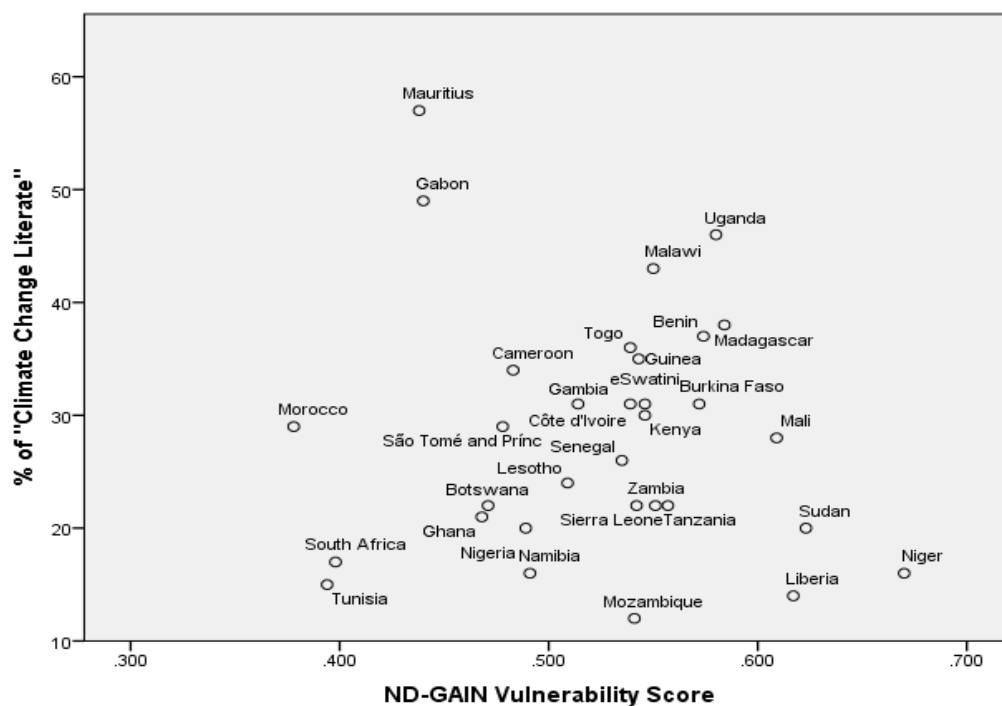
literacy to each component in turn. Our broad assumption is that vulnerability could be a driving force in generating awareness and engagement on the issue of climate change. With regard to readiness, the likely direction of causality is less clear: A climate change literate public could put pressure on a government to increase its readiness; on the other hand, an engaged government might actively engage in building climate change literacy to raise support for its efforts and investments, and thus increase societal preparedness.

In the end, however, we find no statistically significant correlations between climate change literacy and either of the ND-GAIN component indicators. But a few key points nonetheless are evident from Figure 17 and Figure 18.

First, we see that Mauritius stands out as having the highest level of climate change literacy despite facing only a moderate level of vulnerability compared to other countries in the sample (Figure 17). But the high levels of climate change literacy in Mauritius correspond to the country's very high score – the highest in our sample – on readiness (Figure 18). Uganda and Malawi, which are substantially more vulnerable, do not achieve the same levels of literacy as Mauritius, but have nonetheless achieved some of the highest scores in our sample, nearing 50%. Both countries, however, score quite poorly on readiness, despite both significant vulnerability challenges and moderately good levels of public engagement. Further exploration of the factors that shape the interactions between literacy, vulnerability, and readiness are clearly called for.

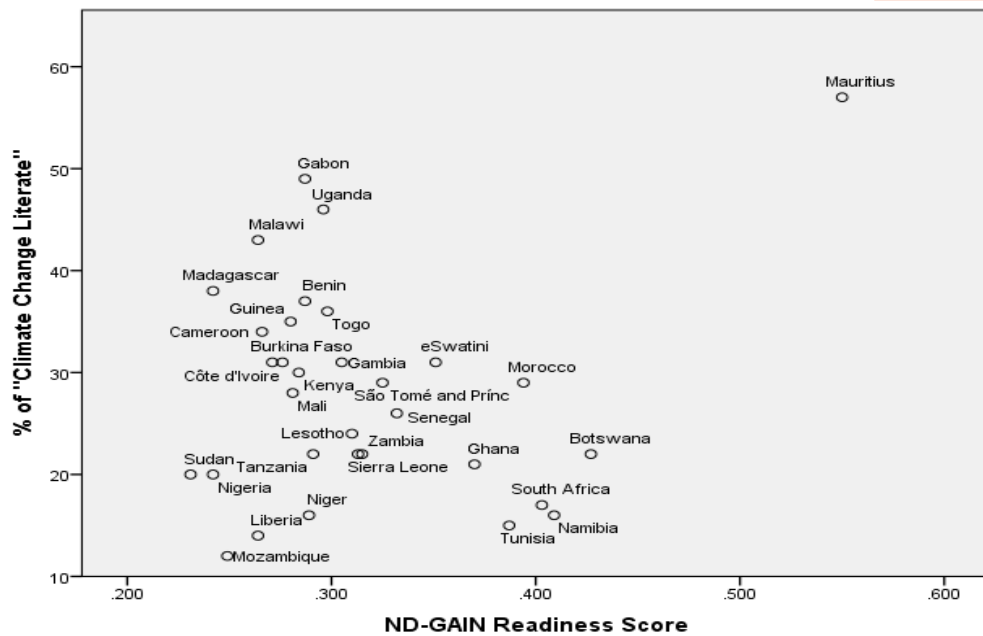
Of particular concern are several countries – most notably Liberia, Niger, and Sudan – that have some of the highest vulnerability levels alongside some of the lowest levels of climate change literacy. We also see that these same countries, along with Mozambique and Nigeria, are among the least prepared to respond. Education campaigns aimed at engaging both the governments and the public might be especially valuable in these countries.

Figure 17: Climate change vulnerability and climate change literacy | 32 countries* | 2016/2018



*Afrobarometer data are not available for Zimbabwe, and ND-GAIN scores are not available for Cabo Verde.

Figure 18: Climate change readiness and climate change literacy | 32 countries*
| 2016/2018



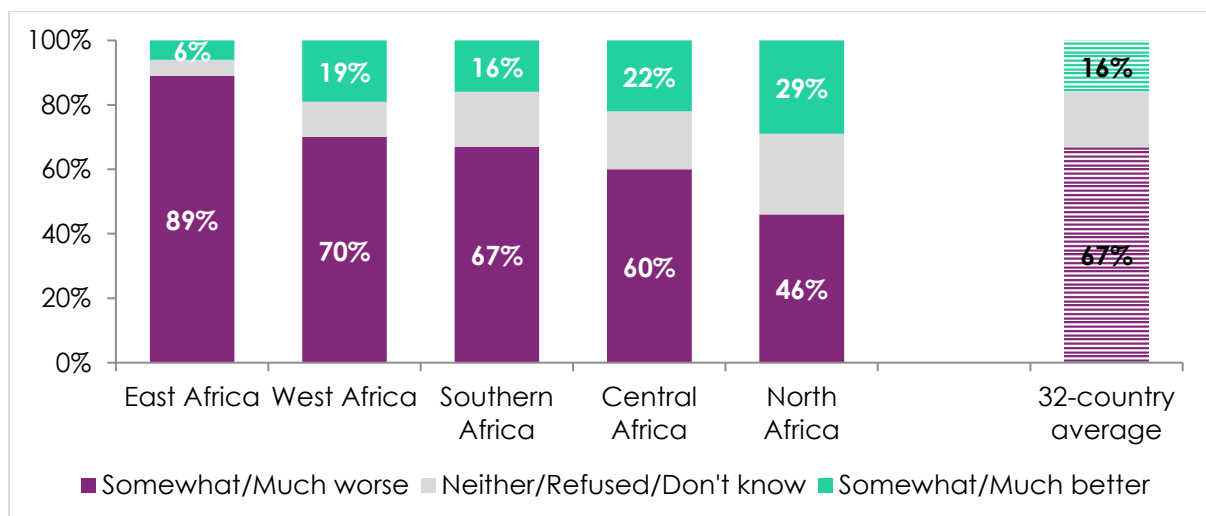
*Afrobarometer data are not available for Zimbabwe, and ND-GAIN scores are not available for Cabo Verde.

Climate change worsening quality of life for Africans

Overall, two-thirds (67%) of Africans who have heard of climate change say it is making their lives "somewhat worse" (34%) or "much worse" (33%). Fewer than one in five (18%) say it is improving the quality of life in their country.

The negative impact of climate change is felt especially strongly in East Africa, where nine out of 10 citizens who have heard of climate change (89%) say it is making life worse. Only about half as many North Africans (46%) see a negative climate impact (Figure 19).

Figure 19: Effect of climate change on quality of life | by region | 32 countries*
| 2016/2018



Respondents who had heard of climate change were asked: Do you think climate change is making life in [your country] better or worse, or haven't you heard enough to say? (Respondents who had not heard of climate change are excluded.) (* This question was not asked in Kenya and Zimbabwe.)



Graphic 1: Climate change literacy

33 African countries 2016/2018

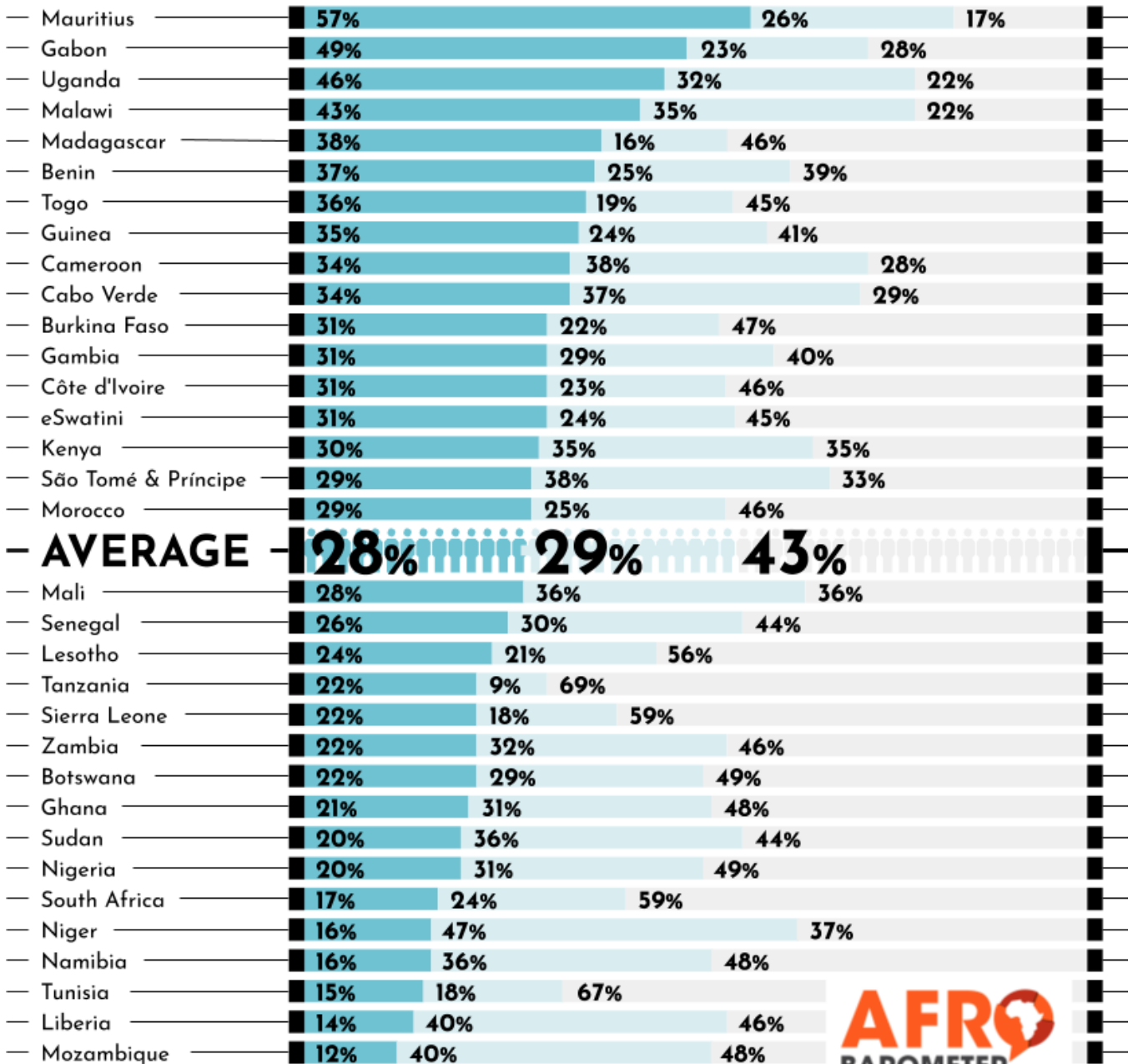
Climate change literate

Have heard of climate change, associate it with negative changes in weather patterns and know that human activity is a major cause

Climate change aware

Have heard of climate change but do not meet all three requirements of "climate change literate"

Haven't heard of it
.....
Don't know



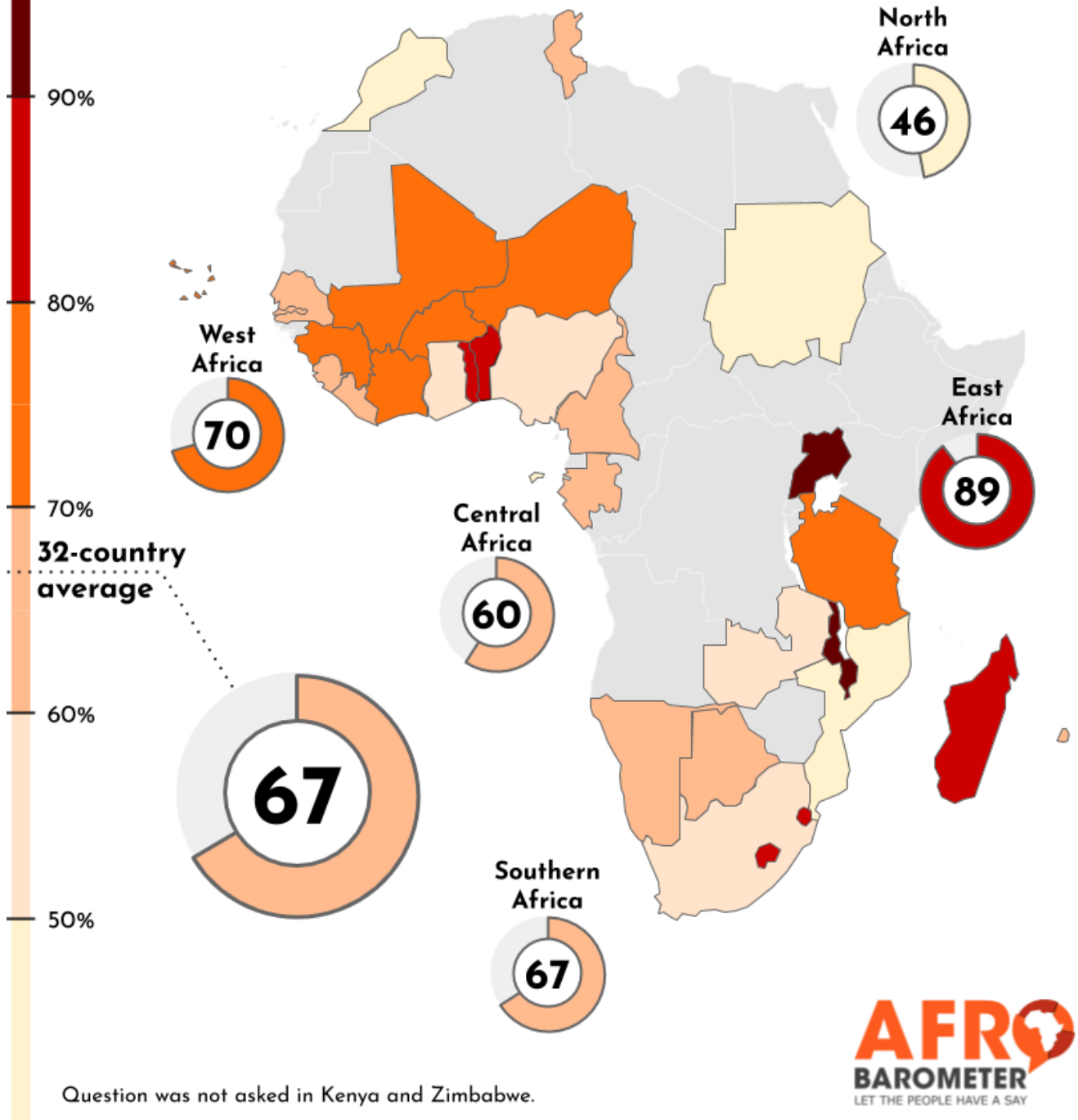
Data not available for Zimbabwe





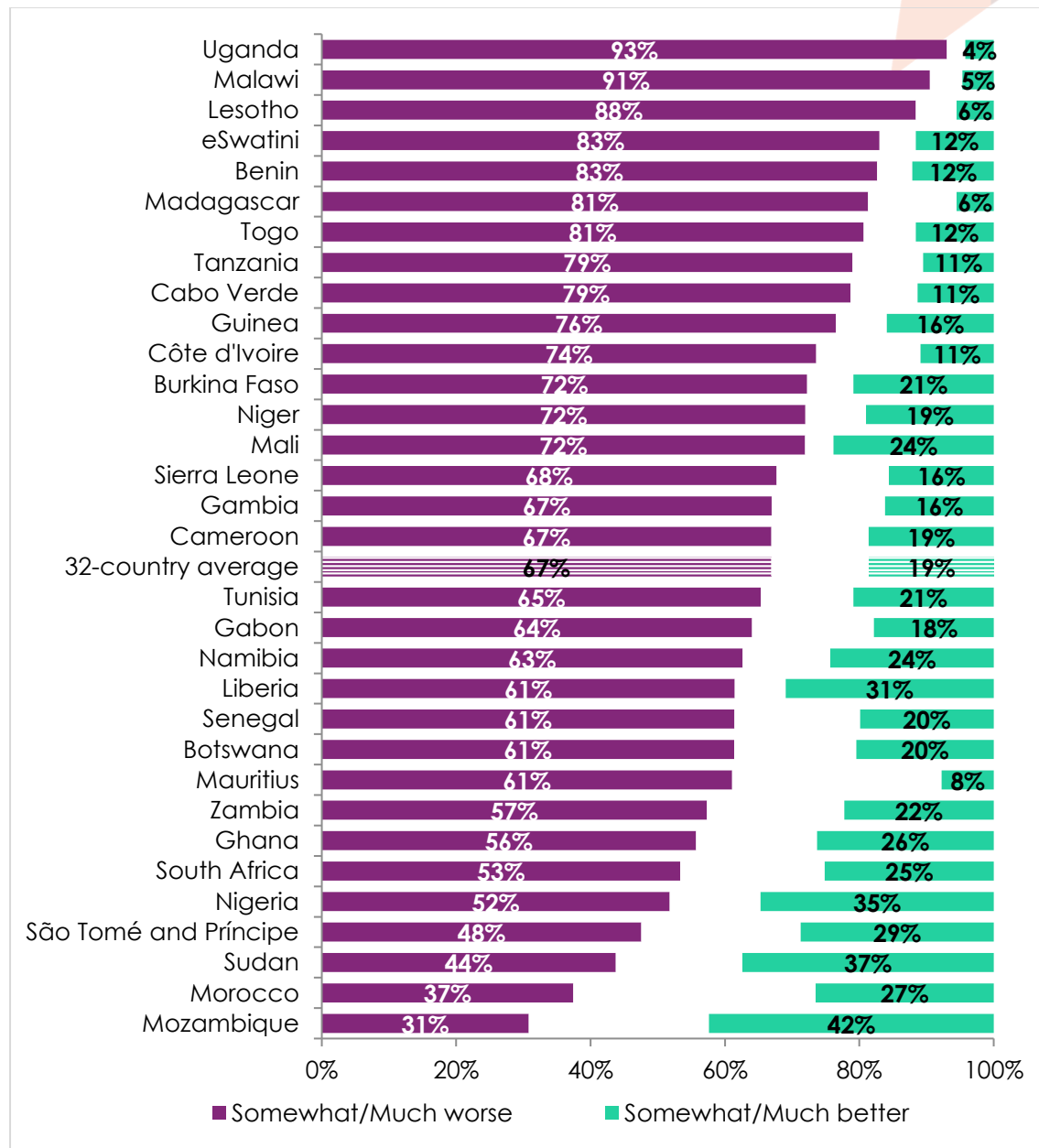
Graphic 2: Climate change is making life worse 32 African countries 2016/2018

% who say climate change is making life in their country "somewhat" or "much" worse



Ugandans (93%), Malawians (91%), and Basotho (88%) are particularly critical of the effects of climate change. In 28 of the 32 countries where this question was asked, a majority of citizens say climate change is making life worse. Mozambique is the only country where people who say climate change is making life better outnumber those who say the opposite (42% vs. 31%) (Figure 20).

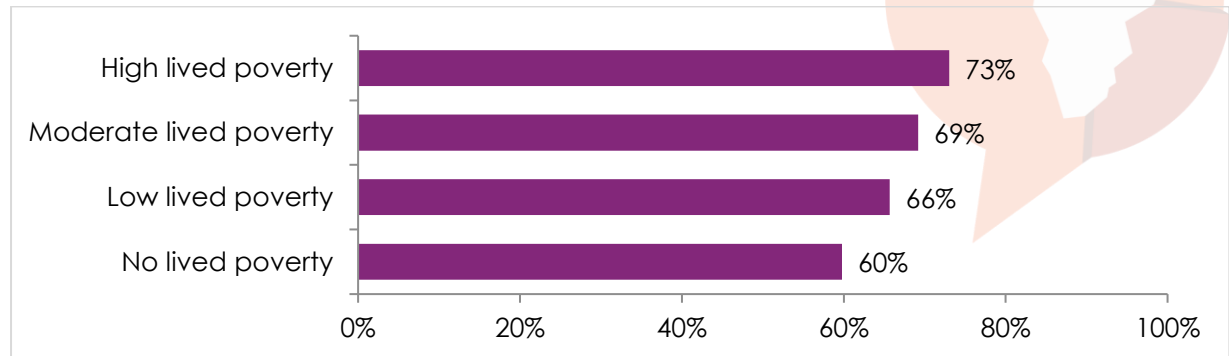
Figure 20: Effect of climate change on quality of life | 32 countries* | 2016/2018



Respondents who had heard of climate change were asked: Do you think climate change is making life in [your country] better or worse, or haven't you heard enough to say? (Respondents who had not heard of climate change are excluded.) (* This question was not asked in Kenya and Zimbabwe.)

The poor are the most strongly affected by climate change, according to survey responses. Almost three-fourths (73%) of respondents who experienced high lived poverty say climate change is making life worse, compared to 60% of those who are economically best off (Figure 21). Older respondents are also somewhat more likely to complain about the effects of climate change (70% among those aged 56 and older, compared to 66% of youth).

Figure 21: Climate change making life worse | by lived poverty level | 32 countries* | 2016/2018



Respondents who had heard of climate change were asked: Do you think climate change is making life in [your country] better or worse, or haven't you heard enough to say? (% who say "somewhat worse" or "much worse") (Respondents who had not heard of climate change are excluded.) (*Question was not asked in Kenya and Zimbabwe.)

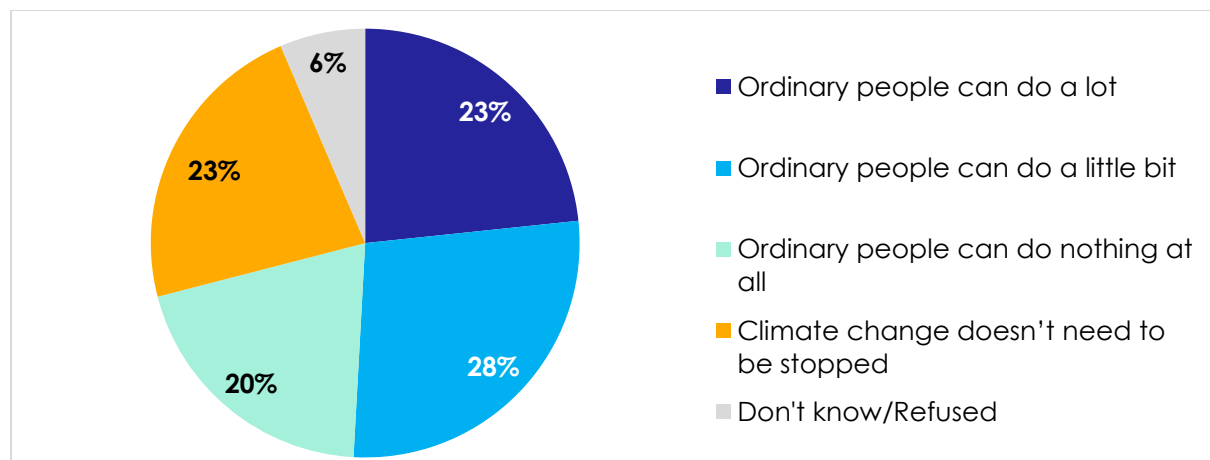
Can climate change be stopped?

The United Nations (2018) identifies climate change caused by human activity as one of the major challenges of our times. As the environmental group Greenpeace (2019) says, "We have the knowledge, skills, and technologies to stop climate change. All over the world people have woken up to the threat and are working to reduce the use of fossil fuels, stop rainforest destruction, and get power from clean energy." If you "google" "How to stop climate change," dozens of websites will tell you what you can do to help – though of course many potential courses of action require not just the goodwill of individual citizens, but leadership, popular coordination, and major doses of political will as well.

Do ordinary Africans believe that climate change can be stopped? Do they think they can play a role?

Among respondents who are aware of climate change, seven in 10 (71%) say climate change needs to be stopped, and about half think ordinary people can do "a lot" (23%) or at least a "a little bit" (28%) to help (Figure 22). One in five (20%), however, say there is nothing they can do to stop climate change, and about the same proportion (23%) think climate change doesn't need to be stopped at all.

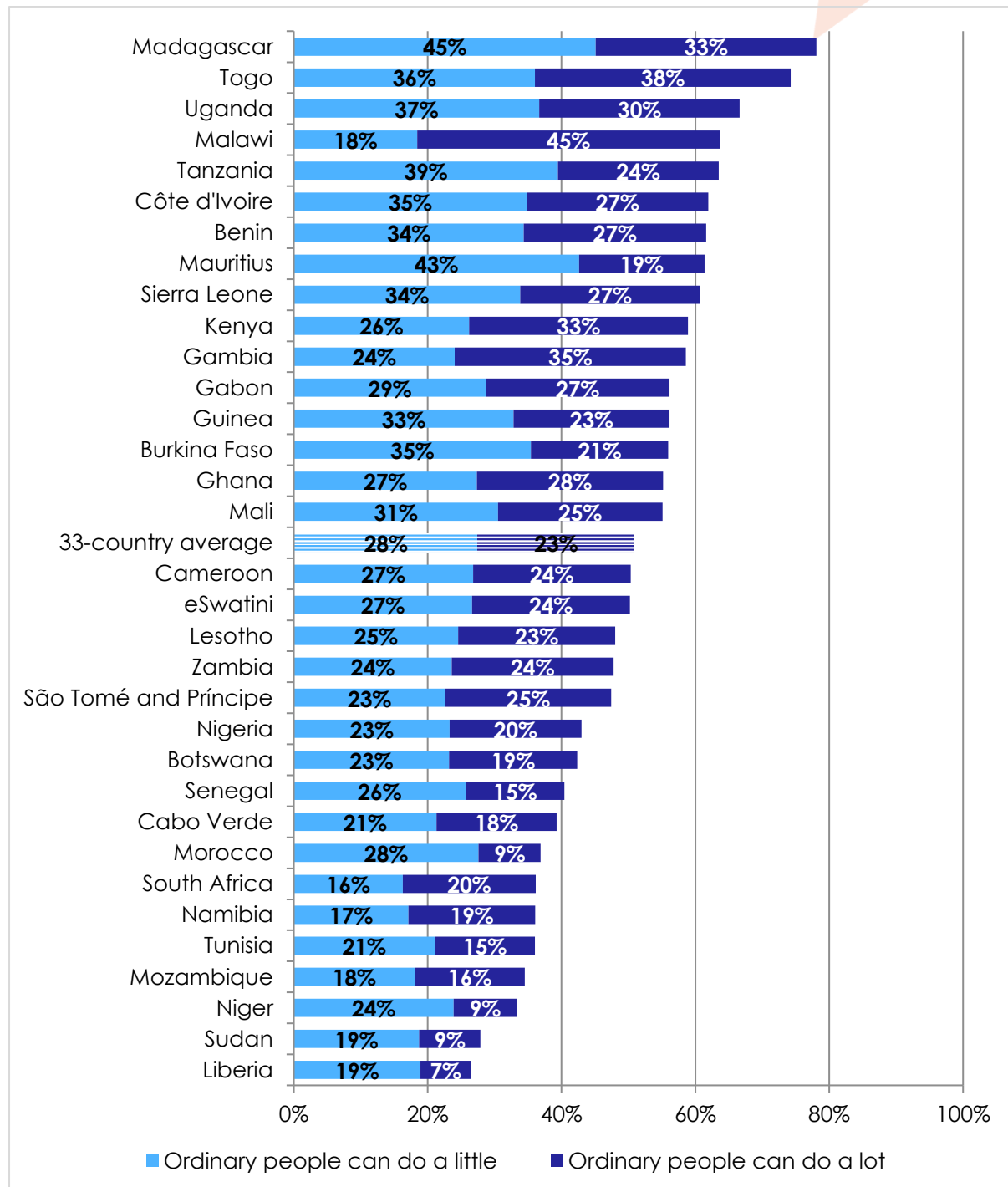
Figure 22: Stopping climate change | 33 countries* | 2016/2018



Respondents who had heard of climate change were asked: Do you think that climate change needs to be stopped? [If yes:] How much do you think that ordinary [people in your country] can do to stop climate change? (Respondents who had not heard of climate change are excluded.) (* This question was not asked in Zimbabwe.)

But perceptions of whether ordinary people can make a difference in the fight against climate change vary widely by country. In Madagascar (78%) and Togo (74%), people are particularly confident that they can contribute “a little bit” or “a lot.” Ugandans (67%) and Malawians (64%), too, are pretty optimistic. But in Liberia (26%), Sudan (28%), and Niger (33%), relatively few people think they can make any difference (Figure 23).

Figure 23: Ordinary people can do ‘a little’ or ‘a lot’ to stop climate change
| 33 countries* | 2016/2018



Respondents who had heard of climate change were asked: Do you think that climate change needs to be stopped? [If yes:] How much do you think that ordinary [people in your country] can do to stop climate change? (Respondents who had not heard of climate change are excluded.) (* This question was not asked in Zimbabwe.)

Conclusions

Not surprisingly, Africa's perceptions of climate change are as varied as its weather. Clearly, many countries are seeing changes in climate and weather patterns that are hurting farmers and herders, most often through worsening drought.

In some of the most severely affected countries, including Uganda, Malawi, and Cabo Verde, substantial majorities of the population are familiar with the term "climate change." Overall, nearly six in 10 Africans have at least heard of the phenomenon.

But in others, awareness of climate change is much less widespread. These include some of the continent's most influential countries, such as Ghana, Nigeria, and South Africa, as well as places where changing weather patterns are playing havoc with agriculture, as in Lesotho. Only bare majorities are familiar with the concept in Nigeria and Ghana, and fewer than half of citizens have heard of climate change in five other countries.

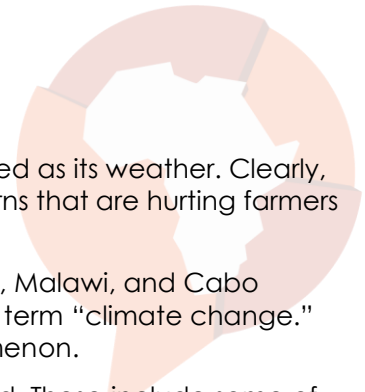
Among those familiar with the term, fully two-thirds report that climate change is making life worse in their countries; the need to address the challenges it poses is clearly being felt in many places across the continent.

But even these "climate change aware" citizens do not always fully understand either its human causes or its largely negative consequences. Only about three in 10 Africans are truly climate change literate, in the sense that they combine awareness of the term with a basic understanding of the human causes and the negative consequences.

We do not have information about how climate change literacy among Africans compares to that in other regions according to this metric. But as one of the global regions most susceptible to the potential harms of climate change, the need for education to build constituencies for action is clear. Proponents of an active response to climate change in Africa must continue to join others around the globe to build informed core populations that understand the threats and will support coordinated government and international responses. Such constituencies will benefit government officials and policy activists who need citizen backing for climate action. Civil society, educational institutions, media, and government can all contribute to building public knowledge about this issue. Those engaged in agricultural occupations and poor people, who are least knowledgeable about but most vulnerable to climate change, would be especially important targets for such outreach.

But education efforts shouldn't stop with building awareness and understanding of the problem. Nearly three-quarters of those who are already aware of climate change agree that it needs to be stopped, but citizens are less confident about their own ability to make a difference. Advocacy should also aim to build popular understanding of how ordinary citizens can respond effectively to this challenge by taking individual and collective actions that can enhance the capacity for prevention, early warning, adaptation, and mitigation.

Given Africa's low greenhouse gas emissions but high vulnerability to climate change, and its responsibility for designing its own development future, such consensus-building measures for urgent climate action may be among the most important contributions that African nations can take to the UN Climate Action Summit in New York later this year.



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Appendix

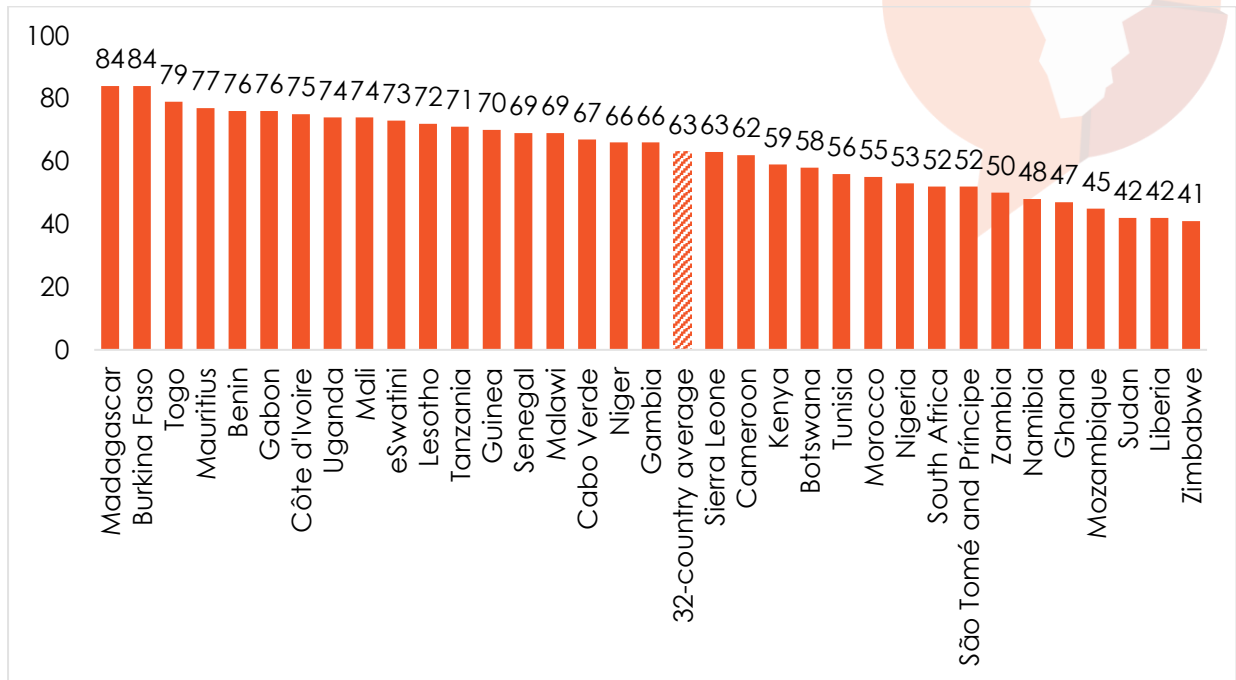
Table A.1: Afrobarometer Round 7 fieldwork dates and previous survey rounds

Country	Months when Round 7 fieldwork was conducted	Previous survey rounds
Benin	Dec 2016-Jan 2017	2005, 2008, 2011, 2014
Botswana	June-July 2017	1999, 2003, 2005, 2008, 2012, 2014
Burkina Faso	Oct 2017	2008, 2012, 2015
Cameroon	May 2018	2013, 2015
Cape Verde	Nov-Dec 2017	2002, 2005, 2008, 2011, 2014
Côte d'Ivoire	Dec 2016-Jan 2017	2013, 2014
eSwatini	March 2018	2013, 2015
Gabon	Nov 2017	2015
Gambia	July-August 2018	N/A
Ghana	Sept 2017	1999, 2002, 2005, 2008, 2012, 2014
Guinea	May 2017	2013, 2015
Kenya	Sept-Oct 2016	2003, 2005, 2008, 2011, 2014
Lesotho	Nov-Dec 2017	2000, 2003, 2005, 2008, 2012, 2014
Liberia	June-July 2018	2008, 2012, 2015
Madagascar	Jan-Feb 2018	2005, 2008, 2013, 2015
Malawi	Dec 2016-Jan 2017	1999, 2003, 2005, 2008, 2012, 2014
Mali	Feb 2017	2001, 2002, 2005, 2008, 2013, 2014
Mauritius	Oct-Nov 2017	2012, 2014
Morocco	May 2018	2013, 2015
Mozambique	July-August 2018	2002, 2005, 2008, 2012, 2015
Namibia	Nov 2017	1999, 2003, 2006, 2008, 2012, 2014
Niger	April-May 2018	2013, 2015
Nigeria	April-May 2017	2000, 2003, 2005, 2008, 2013, 2015
São Tomé and Príncipe	July 2018	2015
Senegal	Dec 2017	2002, 2005, 2008, 2013, 2014
Sierra Leone	July 2018	2012, 2015
South Africa	August-Sept 2018	2000, 2002, 2006, 2008, 2011, 2015
Sudan	July-August 2018	2013, 2015
Tanzania	April-June 2017	2001, 2003, 2005, 2008, 2012, 2014
Togo	Nov 2017	2012, 2014
Tunisia	April-May 2018	2013, 2015
Uganda	Dec 2016-Jan 2017	2000, 2002, 2005, 2008, 2012, 2015
Zambia	April 2017	1999, 2003, 2005, 2009, 2013, 2014
Zimbabwe	Jan-Feb 2017	1999, 2004, 2005, 2009, 2012, 2014

Table A.2: Afrobarometer publications on climate change, 2017-2019

Country	Publication
Benin	Dispatch No. 153: <u>Les changements climatiques détériorent la production agricole et la vie, selon les Béninois</u>
Kenya	Dispatch No. 183: <u>Kenyans say climate change affecting personal lives and country</u>
Mauritius	Dispatch No. 214: <u>'Paradise is getting rocky': Mauritians see climate change as threat to quality of life</u>
Côte d'Ivoire	Dispatch No. 221: <u>Despite threat to cocoa and reforestation response, only half of Ivoirians aware of climate change</u>
Mali	Dispatch No. 222: <u>Les Maliens dénoncent les effets néfastes des changements climatiques</u>
eSwatini	Dispatch No. 226: <u>eSwatini citizens see more severe weather, but almost half are not aware of climate change</u>
Tanzania	Dispatch No. 227: <u>Only one in three Tanzanians aware of climate change</u>
Gabon	Dispatch No. 229: <u>Les changements climatiques rendent la vie pire, selon les Gabonais</u>
Cameroon	Dispatch No. 260: <u>Les changements climatiques affectent négativement la vie des Camerounais</u>
Botswana	Dispatch No. 264: <u>Amidst drought, only half of Botswana are aware of climate change</u>
Liberia	Dispatch No. 268: <u>Climate change making life worse in Liberia, but only half of citizens have heard of it</u>
Togo	Dispatch No. 279: <u>Les changements climatiques empirent la vie au Togo mais sont moins connus par les agriculteurs</u>
South Africa	Dispatch No. 295: <u>Are South Africans prepared to confront climate change?</u>
Uganda	Dispatch No. 303: <u>Most Ugandans see worsening drought, say climate change is making life worse</u>

Figure A.1: Among those who have heard of climate change, proportion who say it refers to negative changes in the weather (%) | 34 countries | 2016/2018



Respondents who had heard of climate change were asked: What does the phrase “climate change” mean to you? (Respondents who had not heard of climate change are excluded.)

AFRO BAROMETER

LET THE PEOPLE HAVE A SAY



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Afrobarometer, a nonprofit corporation with headquarters in Ghana, directs a pan-African, non-partisan research network. Regional coordination of national partners in about 35 countries is provided by the Ghana Center for Democratic Development (CDD-Ghana), the Institute for Justice and Reconciliation (IJR) in South Africa, and the Institute for Development Studies (IDS) at the University of Nairobi in Kenya. Michigan State University (MSU) and the University of Cape Town (UCT) provide technical support to the network.

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