

# Communicating climate change in

# تونس Tunisia

*A global narratives project*



This report was made possible with financial support from the KR Foundation.



## About Climate Outreach

**Climate Outreach** is a team of social scientists and communication specialists working to widen and deepen public engagement with climate change. Through our research, practical guides and consultancy services, our charity helps organisations communicate about climate change in ways that resonate with the values of their audiences.

## About Climate Action Network International (CAN-I)

The **Climate Action Network** (CAN) is a worldwide network of over 1,300 non-governmental organisations (NGOs) working in more than 120 countries to promote government and individual action to limit human-induced climate change to ecologically sustainable levels. CAN members work to achieve this goal through information exchange and the coordinated development of an NGO strategy on international, regional and national climate issues.

## Acknowledgements

First and foremost the authors would like to thank the project participants who delivered the Narrative Workshops: **Marroua Languer** from The Association for Development and Environment of El Kram (ADEK), **Amyne Khouni** from The Association for Environment and Development of Soliman (AEDS), **Rayhane Zayani** from The Association for protecting Maâmoura Littoral (APLM), **Ahmed Kochtane** and **Islem Ben Maouia** from the Tunisian Association for the Protection of Nature and Environment of Korba (ATPNE), **Marwa Fatnassi** from the Association for safeguarding wetlands of southern Tunisia (ASZHST), **Abdelmajid Kachkouch** from the Association for the Safeguarding of Djerba (ASSIDJE), **Sami Aoun** from the Association for Environment Protection in Dhehiba (APED), **Itaf Chebbi** from La Ruche de la citoyenneté active – Tozeur and **Haifa Ammar** from The Association for Environment Protection and Sustainable Development of El Guettar (AEDDG). The authors would also like to thank the members of the narratives project team who have collaborated to make this project happen: **Nouhad Awwad** and **Fatima Ahouli** from CAN Arab World; **Jana Merkelbach** and **Farah Attyyat** from CAN International and **Essiya Guezzi** from Earth Hour Tunisia. In Tunisia, **Nidhal Attiya**, **Hamadi Gharbi**, **Imen Al-Nighaoui** and **Wafa Hmadi** all provided valuable comments on the report.

## About Climate Action Network Arab World (CAN-AW)

**CAN-AW** is a coalition of 112 civil society organisations from 17 Arab countries. It aims to enhance the concept of climate protection and renewable energy in addition to developing strategies to reduce carbon emissions from facilities throughout the region. The network also focuses on areas highly related to the concerns of the region, such as water scarcity, climate change and food insecurity.

## About Earth Hour Tunisia

Created in April 2015, **Earth Hour Tunisia** is an environmental non-profit association whose main objectives are protecting nature and environment. Earth Hour Tunisia works to raise awareness of the need to reduce energy consumption and to protect biodiversity as ways to fight climate change.

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**Cite as:** Webster, R., Wang, S., Marshall, G. and Chibani, A. (2020). Communicating climate change in Tunisia: A global narratives project. Oxford: Climate Outreach.

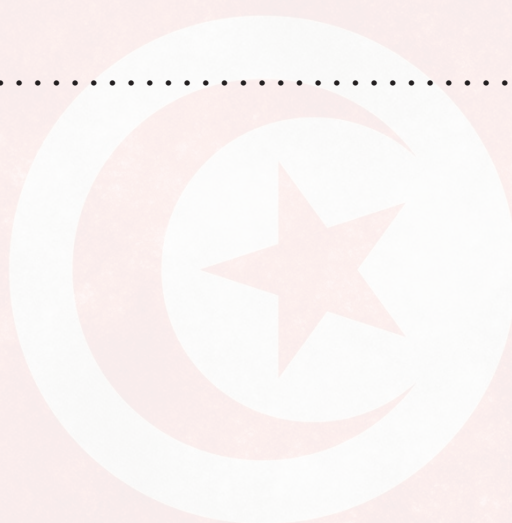
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**NOVEMBER 2020**



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# Introduction

## Why we need a conversation about energy and climate change in Tunisia

Tunisia is a unique country. A young democracy, culturally it sits between Europe, Africa and the Arabic-speaking world. In late 2019, it held its second peaceful and democratic presidential election. Despite serious economic and social problems, the country has a strong sense of self-identity and national cohesion.

The gains Tunisia has made are, however, under threat. It is already feeling the effects of climate change and is doing little to address what this may mean in the future. The country experienced a drought that lasted several years in the early 2000s, the most severe since the fifteenth century.<sup>1</sup> In 2018, temperatures reached 49.3°C in western Tunisia<sup>2</sup> – well beyond the threshold for ‘deadly’ heat.<sup>3</sup> In the same year, record rainfall caused unprecedented flooding in northern Tunisian cities.<sup>4</sup> The country also faces a problem of growing water scarcity, which has the potential to affect food supplies.<sup>5,6</sup>

In the future, rising temperatures have the potential to make these problems a great deal worse. If efforts are not made globally to reduce emissions, rain in Tunisia is projected to decline by 10% to 40% every year.<sup>7</sup>

Despite all this, climate change is not a topic of major cultural or political conversation in Tunisia. The issue barely featured in the 2019 presidential elections.<sup>8</sup> Virtually no effort has been made to engage the public on the matter. This research has uncovered no reliable statistics showing how people think about climate change in Tunisia, and the country has been largely ignored by climate change communication researchers.

Tunisia has done little in comparison to many richer countries to cause the problem of climate change, but it will be severely impacted. The lack of attention paid to the coming impacts means the citizens of Tunisia have very little chance to advocate on the global stage and on their own behalf for emissions cuts, or to prepare for any coming changes. To counter this, an effective conversation about climate change is therefore morally, politically and economically necessary in Tunisia.

# About this report

This report provides practical guidance indicating what language works for communicating about climate change in Tunisia and what language is less effective. It is a result of a research programme carried out in Tunisia from September to December 2019, where partner organisations based in Tunisia ran nine values-based focus groups (known as Narrative Workshops) across the country, with 107 participants in total. As far as the authors know, this is the first time in-depth climate change communications research has been undertaken in Tunisia.

The research is a part of a wider project of Climate Outreach, CAN-I and CAN-AW exploring attitudes to climate change in three case study North African countries – Tunisia, Mauritania and Egypt. The approach was first used in Tunisia in 2019, and is being applied in 2020 in Egypt and Mauritania. A report covering all three countries will be released in early 2021.

The project uses the **global narratives methodology**, a citizen science approach to climate change communications research developed by Climate Outreach. Local partner organisations are professionally trained to deliver Narrative Workshops with different audiences, testing specific language around climate change, land and renewable energy. Using this data, the project develops distinct and culturally specific narratives on climate change.

Prior to this methodology being developed, most in-depth research on climate change communications and engagement had been carried out in a narrow and unrepresentative set of nations.<sup>9-11</sup> Similarly, limited attempts have been made to engage people living in countries likely to be profoundly affected by the challenge of climate change. The global narratives methodology aims to address these problems while empowering local communicators.

The global narratives methodology has previously been successfully applied in India in 2017 and in Alberta, Canada in 2018. The report is also based on Climate Outreach's previous research on climate change communications throughout its 15 year history.

The methodology used in the research in Tunisia has some limitations. The Narrative Workshops did not cover all regions of the country and some communities were not represented, as outlined in the appendix. The workshops were carried out in late 2019, prior to the 2020 Covid-19 pandemic, which also delayed the release of this report. While the report draws on the evidence showing what this may mean for the climate change debate in Tunisia, this is an ongoing and dynamic situation which is not reflected in the results of the Narrative Workshops. The results are therefore indicative and should be considered in the context of these limitations.





# Key findings

## The need for climate education

Participants in this research were well aware of the changes already occurring around them as a result of changing temperatures, in addition to other environmental damage like poor waste management and industrial pollution.

Abnormal changes to seasons came up spontaneously in almost all groups and, in all of them, the participants agreed that climate change would affect their lives personally. Fishermen expressed particular concern, reflecting on their experiences and observations of the changing marine environment and what it would mean for their future livelihoods.

Few people, however, linked human actions to rising temperatures directly and many participants were not clear which human activities contribute to climate change. In recent polling, only about four in ten Tunisians agree that climate change is mostly caused by human activity, supporting this finding.<sup>12</sup> Wider research shows low levels of climate literacy in many parts of the world and indicates a general need to raise levels of climate literacy and improve access to climate information.<sup>13-15</sup>

These results suggest that the people of Tunisia are aware of the impacts of climate change already happening around them and that they have the right to be better informed about the causes and potential implications for their country in the near future, and to claim the rights to a decent livelihood, equality and health that may be threatened by climate change.



*All of us are interested in this topic [climate change]. – Fisherman*



*I think that climate change affected the fish stocks. There is a change in the fish species. – Fisherman*



*We no longer live the seasons as before. We don't see seasons at their normal time, especially winter and summer. – Association member, APED*



*Yes, of course [climate change will affect me personally]. – Rural woman and university student*



# Language to use in communicating climate change in Tunisia

## ● The seasons no longer come on time

Participants in the workshops showed high awareness of the day-to-day impacts of climate change including rising temperatures, droughts, floods and different fish species in the sea. In particular, abnormal changes to seasons came up spontaneously in almost all groups and were apparent to most group participants. Members of all groups agreed that climate change would affect their lives personally.

## ● The air around the world is being polluted

Tunisians are experiencing significant environmental problems, including poor waste management, air pollution, an eroding coastline and increasing desertification, and participants in this research were very aware of this. Tunisians' strong sense of local environmental issues could be linked to the wider global concerns of climate change, using them as an entry point for awareness raising about its causes.

## ● We have to be open and honest about what is happening

In this research, many participants valued openness and honesty highly. They saw being open to learning new information, developing oneself and accepting opposing points of view as respectful acts and even as a responsibility. Many also disliked dishonesty, political language and the idea that the government is failing to uphold its environmental laws. Language that appeals to authenticity and honesty is likely to be effective as a starting point for educating Tunisians about the future impacts of climate change.

## ● We can come together to restore balance and harmony

Group members talked about the Tunisian people as harmonious, compassionate and cooperative and saw perseverance as a positive attribute. They expressed pride in Tunisia as a peaceful nation, able to come together in a time of crisis. Previous Climate Outreach research also suggests that connectedness is a major narrative for people of Islamic faith. The idea that climate change is disrupting the natural balance of the world could also provide an effective starting point in communicating climate change with Islamic audiences in Tunisia.<sup>16,17</sup>

## ● Nature is a gift we should respect

Among the groups, respect emerges from this research as a central Tunisian value. In the discussion groups, respect was used in many different ways, from respecting one another to respecting time and respecting nature and the environment. Participants in the workshops acknowledged the natural resources Tunisia possesses and largely expressed disapproval of people who disrespected nature. The idea of nature and land as a gift is a strong Islamic principle.<sup>18</sup>

## ● Climate change will impact on food and health

Food is a big part of Tunisian culture. Some participants commented that people are noticing how the quality, affordability and type of food they are eating has changed and worry about what this will mean for people's health. Making the connection between food as a source of pride and identity and the ways in which a changing climate could affect crops and food security is likely to resonate.

## ● National pride and determination

People participating in this research were proud to be Tunisians and are very driven to improve their country. Many spoke of Tunisia as a democratic, free and progressive country, ahead of other Arabic-speaking countries on key issues such as women's rights.

## ● Tunisia can shine on the global stage once again

Participants in the Narrative Workshops appeared to value Tunisia's international reputation, often using an external view of their country as a source of pride. They wanted Tunisia to achieve its own unique standing in the world by following its own path rather than copying that of others. The idea of Tunisia taking a lead on climate change action fits into this narrative.

## ● We should harness the opportunity of solar power

Almost all discussions in the Narrative Workshops about renewable energy centred around solar power. Participants were frustrated by the government's inability to create solar projects and concerned about the price of electricity. Tunisia has the opportunity to tap into a natural, free and abundant resource that can rejuvenate its economy.

## ● Power is out of balance and Tunisia should be respected

The groups revealed tensions surrounding the issue of Tunisia being taken advantage of by richer countries. Participants from different groups talked about exploitation and global power disparities, both in the context of the environment and more broadly. This could be described as nation states having a lack of respect for each other on the global stage. One way to frame the causes of climate change may be to draw on these issues of global inequality and the need for Tunisia to be respected as it deserves.

## ● People are struggling and this is a way of making a difference

In the groups, inequality, unemployment and economic crises were cited as problems Tunisians face in the present and anticipate in the future. Young people and rural women in particular expressed fears and concerns that they would not be able to find a job. Climate communications should not ignore these concerns.



# Tunisia: country profile

Tunisia, officially termed the Tunisian Republic, is a small country in the Maghreb region of North Africa bordered by Algeria, Libya and the Mediterranean Sea. It is the northernmost country of Africa and has a population of 11.8 million people.

The north of Tunisia is mountainous, with a Mediterranean climate. The south is semi-arid, becoming arid desert closer to the Sahara Desert in the south.<sup>19</sup> The capital, Tunis, is located along the Mediterranean coast. Along its eastern Mediterranean coast, Tunisia has a fertile coastal plain called the Sahel, which is famous for its olives. Tunisia is sometimes affectionately known as 'Green Tunisia' because of its fertile, diverse landscapes.

Recorded evidence of Tunisia's history extends back over 6000 years. Amazigh communities practiced a wealth of agricultural, spiritual and cultural practices thousands of years before the arrival of Phoenician, Hellenic, Roman, Arabian and Islamic influences.<sup>20</sup> The region was conquered by the Ottoman Empire in the sixteenth century and Tunisia became a French protectorate in the late nineteenth century. Tunisia achieved independence from France in 1956 and was subsequently ruled by just two presidents between 1956 and 2011.

Ninety-nine percent of Tunisia's population is Muslim.<sup>21</sup> It has Jewish and Christian minorities and a small population of Amazigh – a people indigenous to North Africa since ancient times. Unlike other countries in the region, Tunisia has no major sectarian tensions. Roughly two-thirds of the population live in urban areas.<sup>22</sup>

Agriculture is an important industry in Tunisia, representing about 10% of GDP.<sup>23</sup> About 15% of the workforce is employed in the sector,<sup>24</sup> which plays a crucial role in Tunisia's economic growth.<sup>25</sup>



Tourism is also central to Tunisia's economy. In 2019, Tunisia's record 9.5 million tourists accounted for about 14% of GDP, according to the industry.<sup>26</sup>

Tunisia's implementation of Islamic societal and legal principles is less stringent than other Islamic majority countries. The country's first leader after independence, Habib Bourguiba, enacted a code that advanced women's rights beyond where they stand now in many other Arab countries.<sup>27</sup> Today, more Tunisian women are enrolled in secondary schools and universities than men. Despite the fact that Tunisia was ruled as a one-party state for more than five decades, it also has a robust tradition of civil society engagement.<sup>28</sup>

Tunisia has been widely praised for a successful transition to democracy.<sup>29</sup> In 2011, Tunisian fruit seller Mohammed Bouazizi died after setting himself on fire in protest at police ill-treatment, sparking protests against corruption, low wages and high unemployment that developed into a 28-day campaign of civil resistance and overthrew the one-party ruling state.<sup>30</sup> The protests in Tunisia sparked the 'Arab spring' across the region.

The country has nevertheless suffered economically since the revolution and unemployment levels stood at 15% in 2019.<sup>31</sup> This is likely to get worse – government statements indicate the economy will shrink by 6–7% in 2020 as a result of the Covid-19 crisis.<sup>32,33</sup> Many Tunisians are frustrated with political infighting and the inability of politicians to cope with the worsening economic situation.<sup>34</sup> In a survey in late 2019, 80% of Tunisians expressed a lack of confidence in their rulers and 85% had little confidence in the future.<sup>35,36</sup>

Engagement in civic life is also reducing.<sup>37</sup> In one recent survey, about a fifth of Tunisian respondents said they had got together with others to raise an issue during the previous year, though increasing numbers said they would do so 'if they had the chance'.<sup>38</sup> There was a significantly reduced turnout in 2019 Presidential election compared to 2011.<sup>39</sup>

## Climate change in Tunisia: current impacts and future projections

Tunisia is already experiencing the impacts of climate change. Temperatures have been rising significantly faster than the world average for several decades.<sup>40</sup> Rainfall has also decreased in Tunisia, according to the Intergovernmental Panel on Climate Change.<sup>41</sup> A drought that lasted several years in the early 2000s was deemed the most severe since the fifteenth century.<sup>42,43</sup> In 2018, temperatures reached 49.3°C in western Tunisia,<sup>44</sup> well beyond the threshold for 'deadly' heat.<sup>45</sup> At the same time, heavy rainfall caused unprecedented floods in northern Tunisian cities.<sup>46,47</sup>

In the future, Tunisia is likely to experience much greater effects.

### Heat

The Middle East and Northern Africa (MENA) region is likely to become a hotspot for extreme heat, drought and aridity.<sup>48</sup> As climate change accelerates, temperatures in Tunisia will continue to rise and rainfall will continue to decline over the coming decades.<sup>49</sup> If global temperatures rise by 2°C, summer temperatures in this region could more than double. By 2050, daytime temperatures could rise to 46°C on the hottest days, making parts of the region uninhabitable.<sup>50</sup>





## Agriculture

Cereals remain very important for human and livestock domestic consumption in Tunisia,<sup>51</sup> but the annual wheat growing period, for example, is expected to shorten by 10–30 days, depending on how high temperatures rise.<sup>52</sup> The Tunisian government projects that Tunisia's agricultural area could reduce by 30% as a result of climate change by 2030.<sup>53</sup>

Climate change is also likely to have a significant impact on the olive oil industry.<sup>54</sup> While erratic weather is already affecting olive oil harvests worldwide,<sup>55</sup> nearly all Tunisia's olive oil trees (80%) are fed by rainwater, making them especially vulnerable.<sup>56</sup> As the third largest exporter of olive oil in the world,<sup>57</sup> olives are Tunisia's most important agricultural export.<sup>58</sup> As the weather changes and the winters become warmer, it may not be possible to grow other fruit and nut trees that are well established in Tunisia today.<sup>59</sup>

## Water

Water scarcity and water poverty are already problems in Tunisia.<sup>60</sup> The Maghreb region is one of the most vulnerable regions in the world due to reducing water availability<sup>61</sup> and further reduction in rainfall in Tunisia is very likely, particularly in the north of the country. This is likely to further reduce



water resources.<sup>62</sup> According to one projection, water availability in Tunisia could decline by up to 28% by 2030.<sup>63</sup> The MENA region as a whole faces an important risk of “extreme drought” if global average temperatures rise by 1.5C or more, according to the IPCC’s 1.5C report.<sup>64</sup>

## Sea level rise, flooding and tourism

Sea level rise could lead to 250,000 people every year being flooded in Tunisia if temperatures rise by 2°C, according to one projection; as many as 800,000 people may be flooded every year if temperatures rise by 4°C.<sup>65</sup> Tunisia’s coast is extremely vulnerable and the Tunisian government estimates that the country could lose 36,000 jobs from the tourism and agriculture industries over the next 30 years as a result of rising sea levels, as well as suffering US \$2 billion in losses from damaged infrastructure.<sup>66,67</sup>

## Interacting impacts

Multiple sectors – tourism, agriculture, infrastructure, energy and health – could be affected.<sup>68</sup> This means that the government would be dealing, not simply with one problem, but with many, leading to more significant impacts than anticipated.<sup>69</sup>

## Government policy on energy and climate change

Tunisia has a relatively high stated level of political commitment to tackling climate change. The Tunisian post-revolution constitution was only the third in the world to include a legal commitment to tackling climate change and its impacts.<sup>70</sup> The constitution says the state shall ‘contribute to the protection of the climate ... for future generations’ and ‘provide the necessary means to eliminate environmental pollution.’<sup>71</sup>

In its submission to the Paris Climate Change Agreement, the Tunisian government committed to reducing carbon intensity by 41% by 2030.<sup>72</sup> The first 13% of its target is unconditional and the remainder depends on financial support from the international community.<sup>73</sup>

A state monopoly energy company (STEG) supplies Tunisia’s energy. Until the 2011 revolution, Tunisia’s energy system was largely self-sufficient. Since the revolution, however, the system has suffered from a lack of investment.<sup>74</sup>

Despite being a small oil and gas producer, Tunisia now imports a significant amount of its energy.<sup>75</sup> In 2017, Tunisia imported nearly half of its energy and the figure is rising, reducing the country’s energy security.<sup>76</sup> The vast majority of its electricity comes from gas,<sup>77</sup> which is mostly imported from Algeria.<sup>78</sup> Relying on imports has meant that electricity is vulnerable to price fluctuations and the depreciation of the Tunisian *dinar* against the dollar.<sup>79</sup>

In 2016, Tunisia sourced 3% of its electricity from renewables, but the government is planning to scale up the sector significantly. It has committed to increasing the share of renewables (wind and solar) in the electricity mix to 30% by 2030.<sup>80-83</sup>

## Climate change awareness in Tunisia: the story so far

Limited scientific and official research exists exploring perceptions of climate change in Tunisia and in-country researchers have access to limited resources. In a 2013 survey of around 1,000 people<sup>84</sup> based on face-to-face interviews, 62% of respondents identified climate change as a major threat to Tunisia. By 2017, this had fallen to 44%.

It is not clear why this fall in public concern (which was not reflected in other countries in the Global South) took place. The rise of terrorism as a major concern in Tunisia over the same period, combined with economic troubles, may provide an explanation. In 2015, Tunisia was the subject of a serious and high-profile terrorist attack.<sup>85</sup> In 2017, 79% of Tunisian respondents identified ISIS as a major threat and 62% identified the condition of the global economy as a major threat.<sup>86</sup>

Tunisians are also concerned about environmental problems more generally. In a separate survey in 2017, 14% of respondents identified environmental problems as the biggest problem in their community – the second most frequently chosen issue after ‘economic problems’. 46% said they were ‘very unsatisfied’ with how the government was managing environmental protection.<sup>87</sup> Tunisians identify waste management and industrial pollution as the most important environmental issues facing the country.<sup>88</sup>

## The context of Covid-19

The 2020 Covid-19 pandemic started after the Narrative Workshops underpinning this report. An event of this significance is likely to have impacted on Tunisians’ perceptions of climate change as an issue. No focused research has been undertaken exploring this change, but a pre-existing evidence base provides insights into what it might mean for a Tunisian climate change narrative.

Tunisia’s first lockdown successfully limited the spread of the disease,<sup>89</sup> but led to a significant economic contraction and rising unemployment.<sup>90</sup> As more immediate worries come into people’s lives, concern about climate change may well go down – in line with a theory known as the ‘finite pool of worry’ effect.<sup>91</sup> In the context of a widening economic crisis, this appears likely in Tunisia.

This projection is not simple however. Going through a period of disruption also has the potential to change people’s views and responses to the world. Personal experience of one ‘dread’ risk (a pandemic) has the potential to increase people’s sensitivity to another (climate change),<sup>92</sup> and if economic disruption is also linked to shifting weather patterns, this may raise levels of concern about their impact.

Short-term crises also tend to increase altruistic behaviour, as people support each other during times of stress. This is well documented and brings to the fore ‘communal’ values – like compassion, interdependence, or equality – that may have been less obvious in society than before. Around the world, holding communal values is a strong predictor of pro-environmental behaviour – substantially stronger, for example, than someone’s income.<sup>93</sup>

Tunisians participating in this research already valued compassion, cooperation and respect for each other highly, suggesting that messaging that speaks to these values may be even more powerful during the Covid-19 pandemic.

Being threatened with disease however leads to an increased fear of perceived threats, potentially leading to greater intolerance towards out-groups and undermining empathy.<sup>94,95</sup> In May 2020, the Secretary-General of the United Nations said the coronavirus was creating a “tsunami of hate” globally, and political polarisation around the world currently appears to be increasing in response to the pandemic.<sup>96,97</sup> Climate communicators speaking to communal values may therefore also oppose more divisive narratives.

Framing that focuses on preparation and resilience also resonate during times of disruption, especially when ‘getting back to normal’ is not an option. Concepts like balance, pragmatism and intergenerational duty – which emerged less significantly from the research below – are more likely to resonate with the Tunisian people than they might have before.

Finally, disruptive events compound and bring to the fore existing social vulnerabilities. People at an economic disadvantage are the most likely to be exposed to risk, most susceptible to harm and most likely to experience negative outcomes, highlighting pre-existing social, economic and racial injustices – as is already happening during the current crises.<sup>98</sup>

Highlighting and addressing inequities is core to tackling climate change,<sup>99</sup> and narratives related to social equity present an opportunity for climate change engagement, as societies are forced to focus more attention on the vulnerable. Discussions about global power disparities also resonated with many participants in this research, both in the context of the environment and more widely. Climate change messaging that focuses on equity and fairness are therefore likely to resonate.

Overall, however, people dealing with one crisis understandably may not have the capacity to think about another problem if they are already struggling emotionally, socially or financially. The wrong communications at the wrong time therefore have a risk of backfiring, creating a sense that campaigners are insensitive to the needs of people who are suffering.

The pandemic, rising unemployment and economic concerns may decrease Tunisians’ ability to engage with climate change as an issue, and this has to be respected. More than ever before, conversations about climate change need to speak powerfully to the day to day experience of living life in Tunisia, and the challenges that people face.



# Approaches to successful communications

The research in this report is based on an understanding of the social science of how to successfully communicate climate change with different audiences. Some key principles from the extensive evidence base in this area are summarised on the following page.

## ● Build language around people's values and identity – not just facts and figures

Accurate facts are an important part of communicating climate change but, according to a large body of international research, they are not enough. Instead, people's position on climate change, land and energy are shaped by their identity and values – the principles by which they run their life.

## ● Talk about the real world, not abstract ideas

Climate change numbers (for example global average temperature targets and concentrations of atmospheric carbon dioxide) do not relate to people's day-to-day experiences. An effective climate conversation starts on common ground, using clear language and examples the audience is familiar with.

## ● Link impacts to efficacy

Information about the potential impacts of climate change is emotionally powerful, but communications research shows that people need a sense of efficacy in order to take action – a belief that they can personally do something and that the thing they will do will be effective.

## ● Trusted messengers are critical to success

Because attitudes are rooted in identity, people will shape their attitudes according to the attitudes of the people around them and will listen to the communicators they respect and whose values they share. Identifying new messengers within communities is an important part of good communications.

## ● Tell a human story

Most people understand the world through anecdotes and stories rather than statistics and graphs, so aiming for a narrative structure and showing the human face behind the science when presenting information will help tell a compelling story.

# A proposal for a successful Tunisian narrative

The narratives below are constructed from three sources, colour-coded as follows.

**Tested text:** The unmarked text was tested in test narratives in the Narrative Workshops and was consistently liked by participants (see appendix for details of method).

**Quotations from participants:** These contain the exact language of participants and therefore reflect their own attitudes.

**New composition:** This is language constructed by the researchers, drawing on conversations in the workshops or added to create a coherent narrative.

Although this language is tested and could be used directly in communications, it still lacks the detail and freshness needed for good engagement. Effective communications could take these themes as a starting point and build on them with examples, images and stories told through trusted communicators.

## Narrative: the problem

This sense of things being out of balance is widely understood.

The weather is out of **balance** (*mīzān*). It is not normal: it is strange and weird. **The seasons no longer come at the right time. We used to have four clear seasons, but now we only have two seasons, which are winter and summer.**

For all groups the change in seasons was a key indicator of climate change.

Food and agriculture are an important part of national identity so specific impacts should be emphasised.

Scientists predict that these impacts will continue to increase. Drought could dry up our oasis and destroy our dates and olive industries. **This will threaten the Tunisian crops that are such an important part of our culture and the foods we love.** The Sahara Desert is marching north at 50 kilometres a year and our farmland is turning into desert.

Few people are aware of the potential impact on tourism which employs 400,000 people.

Each year we get more severe flash floods – **recently** in Siliana, Bizerte, and in 2018 in Nabeul. Over time sea level will rise, threatening all of our coastal regions and our **tourist industry**.

Use recent examples. Flooding and drought were the main risks identified by participants.

It is the most vulnerable people – children, elderly, sick and disabled – who suffer the worst health impacts of these increased temperatures and extreme weather.

**In Tunisia, we always cooperate with each other and help each other in natural disasters. We respect our elderly and care for our children and families. We are proud of our culture.** So we need to prepare for these impacts, protect the people we love and defend our way of life, and restore the natural balance.

Draw on specific examples and stories of mutual support.



## Narrative: the cause

There is a low level of public understanding of the causes of climate change. Communicators will need to explain the connections between burning dirty fuels and climate change.

Scientists say the weather is changing **because of the pollution** people and industry all around the world put into the air, especially the pollution from burning oil, coal and gas for energy and vehicles.

It is not fair that the **richest** people should produce the most pollution when the poorest people will be worst affected by climate change. **People around the world should respect each other and work together.** Tunisia should do everything that it can and the rich countries must play their part and provide funds and technology to help us develop our solar energy and adapt to the impacts of climate change.

Be careful using this argument: on the one hand people agree, and including climate change in wider arguments of social justice could mobilise people.

However, it could also feed into a sense of victimisation and support inactivity. So judge your audience when you decide whether to use this.

## Narrative: the moral arguments for action

This language consistently performs strongly with Muslims and Islamic cultures.

The natural world is a precious **gift** (*Ni'mat*), but we have damaged that gift, harmed the Earth and broken our relationship with creation.

**We need to respect our nature and our country. Our attitude to nature should be similar to the attitude we have to our houses. We should keep nature clean. We should be the *khalifah* of Creation. We are all connected to the natural world, to the water and to the air, and we are connected to each other.**

Most participants mentioned honesty as a core value. Language around honesty, reality and telling the truth is therefore compelling.

**We should talk about the reality: this is a big problem. We need to be **honest** about this problem and the challenges.**

Reducing waste is a good entry point for personal lifestyle action and consistently approved in Islamic and traditional cultures.

**The people are aware of this problem but **the state is not**.** The government needs to face up to the problem and be open, accountable and honest. It needs to enforce its laws and demand action by companies. Local governments and communities need to work together to make a transition to clean energy and we all need to look at our own lifestyles. We can start by avoiding **waste** (*israf*). Surely we can all agree on that?

Although there are many economic and environmental arguments for action, people respond most strongly to arguments based on values and moral principles.

Participants frequently expressed frustration with the lack of government action.

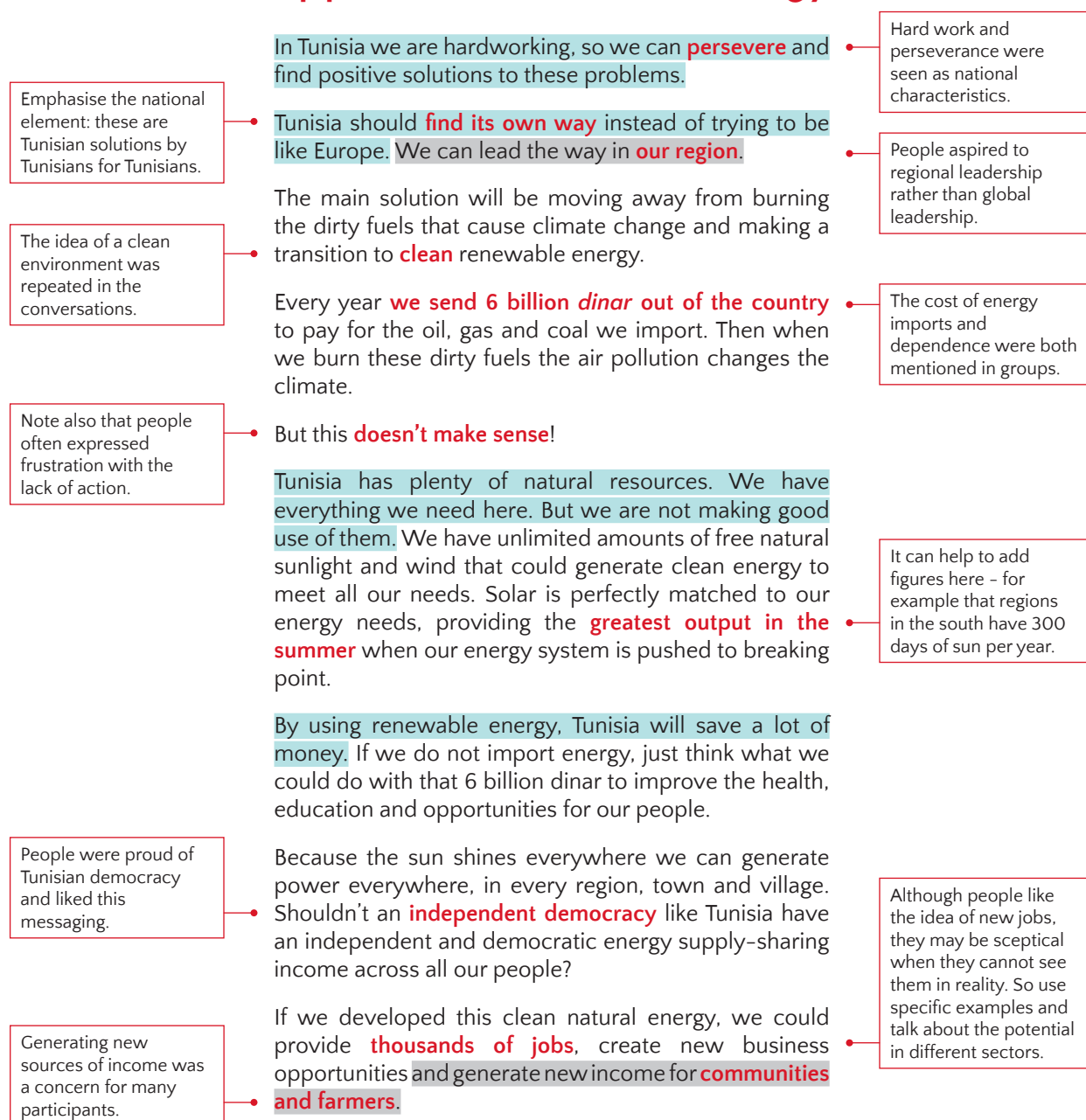
People are concerned about social divisions and the decline of common values. The argument that action on climate change can bring people together could be central to communications.

If we need to make sacrifices, we will do so as our duty to care for the world we inherited from our ancestors and pass it on to our children. We don't need to shout about it, though. **We can do it modestly through our actions, live in moderation, taking from the world what we need but not everything we desire.**

This language consistently performs well in Islamic cultures.

**If we take action on climate change we can come together,** and find ways to lead better, simpler and more fulfilling lives.

# Narrative: the opportunities of clean energy



In the first part of the Narrative Workshops people were asked about their values and identity: what they liked and disliked, their core values and what made them proud and different from other groups. The words they used to describe themselves with provided keywords for shaping climate communications.

## Respect

The most frequently mentioned value across all groups was 'respect'. The concept of respect was used in many different ways, from respecting one another to respecting the time, but all groups agreed it is a central societal value. Students and association members (APLM) talked about respect in terms of being open to criticism and accepting differences, and wanted their own perspectives respected by others.



*The most important thing is respect and the respect of my ideas and values. ... I don't want people to play with my ideas and emotions. – School student*



*Respecting everyone no matter what his social class or beliefs are. – School student*



*I am proud that I am Tunisian because we are diverse. We respect everything and we respect nothing but this depends on the person. – Association member, APLM*

Mentions of respect were extended to nature and the environment and even connected to the Tunisian identity and sense of place.



*There are people who live in Tunisia but who don't have any sense of belonging; belonging means respecting the environment and the nature of this country. – Association member, ATPNE*



*For cleanness, for example, in my association we tried to do cleaning campaigns but people did not respect that and they didn't keep the city clean. – Association member, APLM*



*Pollution and disrespect for wet areas, for example using the area of Solimane as trash. – School student*



*We should respect the other and respect ourselves. ... We should respect nature and our attitude in the street should be similar to that in our houses. We should keep the streets and nature clean. We need to respect our nature and our country. – Association member, ATPNE*





Pollution in Char el-Melh, Tunisia.  
Photo: Youssr Youssef (CC BY-SA 2.0)

The concept of respect was also often tied to statements about ethics, discipline and service to the country. Participants in some of the groups also perceived respect as declining.



*After being active in civil society, I became more aware and more respectful of my country.*  
– Association member, ATPNE



*Youth now are no longer respecting anything.* – Craftsman



*Respect: there used to be respect but it is no longer the case.* – Craftsman



*Discipline: if we are disciplined and punctual, we can improve.*  
– Association member, APLM

## Helping and harmony

Participants in the Narrative Workshops also talked about the Tunisian people as harmonious, compassionate and cooperative. They expressed pride in Tunisia as a peaceful nation.



*I am proud that the Tunisian people are harmonious, although we have different ethnicities.*  
– Association member, APLM

Altruism, volunteering and helping others tended to be raised in Narrative Workshops by people from older generations: association members, craftsmen and rural women.



*The most important value for me is that we should cooperate with each other and we should not envy each other.* – Fisherman



*I like those who help others without waiting for anything in return.* – Rural woman



*Youth in Tunisia prefer sleeping or going to coffee shops rather than volunteering.*  
– Association member, APLM

## Honesty and openness to criticism

In the workshops, participants tied honesty and openness closely to respect. Both values were strongly endorsed by association members in particular, but were also mentioned in other Narrative Workshops (students, the disabled, craftsmen). Participants perceived being open to learning new information, developing oneself and accepting opposing points of view as respectful acts, and even as a responsibility.



*I think that responsibility should be associated with honesty.* – Association member, APED



*Open-mindedness [means] that you accept criticism.* – Association member, APLM



*It is important to respect others when we are honest and to choose the right words. I accept honesty with respect and without hurting people.* – Association member, APLM



*We should not take honesty in the way of looking for conflicts, but we should take it as a reality. We should say the reality so that the person who needs this reality makes a good decision.* – Association member, APLM



*Honesty ... will help us to progress.* – University student

## Positivity and perseverance

Many group members highlighted optimism/positivity and perseverance as values that are important to them. These concepts are related because the participants were not describing being 'blind' or silent to the faults of others as a positive attribute, but rather helping them improve by offering critique and encouraging perseverance.



*I like optimistic persons who give you positive vibes when you talk to them. They don't bring you down. For example, there are people who would tell me that I am an old person and that it is useless for me to attend this discussion. We should not be afraid of what people may say.* – Rural woman



*I don't like negative people who put me down and tell me that I can't do [something].* – School student



*I want them to be positive even when you commit a mistake; they should criticise you positively instead of being negative.* – Association member, APLM

People in different groups were proud of perseverance and patience in the face of adversity.



*The most important thing is to try. We cannot reach our dreams if there are no obstacles and no failure.* – Participant with disability



*I am proud of myself because I persevere. I quit university but here I am, a student again after years of absence. What is different between me and other students is that I am a mother and a student at the same time.* – University student



*I should be very patient with the client and I shouldn't get angry if he doesn't buy anything. If we are not patient, we cannot work.* – Craftsman

# Key themes in communicating climate change in Tunisia

## Tunisia finding its own way on the global stage

Participants in the Narrative Workshops appeared to value Tunisia's international reputation, often taking an external view of their country as a source of pride.



*Many other countries wish to be Tunisian.* – University student



*Living outside Tunisia made me proud to be Tunisian.*  
– University student



*Even Europeans say “I recruited a Tunisian” and they are proud.*  
– Association member, APLM

Many of the participants readily engaged in comparison (both positive and negative) with other countries, both regionally (within MENA) and beyond. Tunisian values, intelligence and competence on the world stage were all discussed in positive terms.



*I think that Tunisian people are smart and they are a pride in the whole world. We have many competent Tunisians all over the world holding important positions; they are engineers, doctors...* – University student



*I think that 20% of NASA employees are Tunisian and I am proud of this.*  
– Rural woman



*Tunisia is the first Arab country that did the revolution.*  
– University student



*All over the Arab countries, the most respectful people are Tunisians and the most hardworking are Tunisians. Tunisians are harmonious. ... I want you to be proud that you are Tunisian.* – Association member, APLM

Some people, however, also expressed pessimism when comparing Tunisia with countries they perceive to be doing better economically, or while reflecting on Tunisia's economic circumstances more generally. There were many upward comparisons with countries that were perceived to be doing better, especially countries that had come from a low level of economic development.



*I am pessimistic when I compare my country to Singapore or Rwanda. They had nothing but now they are one of the most important tourist destinations in the world.* – Association member, APLM



*I am a pessimist because, when I see countries like Germany and South Africa, they were nothing but now they have reached an advanced economic level and growth.*  
– Association member, APLM



*Twenty years ago, Moroccans used to come and work in Tunisia, but now they surpass us on several levels. – Association member, APLM*

Participants were interested in Tunisia's standing in the world but appeared to seek **self-definition and achievement**, rather than copying others. One participant remarked that, instead of mimicking other countries, Tunisia should find its own way.



*We should think about what Tunisians want instead of trying to be like Europe. – Association member, APLM*

## Outward patriotism, inward appraisals: trusted messengers

The groups were willing to criticise Tunisian culture, leadership and economic status, but participants also said they would be positive about the country to non-Tunisians. This suggests that, if a message is critical of Tunisia's actions, it should be perceived as coming from an insider or a Tunisian voice.



*Yes, when I talk with a Tunisian, I criticise the country. But when I talk about my country with a foreigner, I make him feel that Tunisia is a paradise. – Association member, APLM*



*I feel bad when I see that there are no equal opportunities for the disabled in my country. ... I show the foreigners that I am proud of my country but when I am here I doubt my pride. – Participant with disability*

Overall, participants in the Narrative Workshops were honest and critical about the country's shortcomings, but also expressed pride in their country and a drive to improve it. Pride did not lead them to sugarcoat the faults that they saw and statements of pride were often tempered with concerns and disappointment about the state of the country.



*I am proud of belonging to Tunisia, despite its bad system. It is like being proud to belong to your family, for example. – Association member, ATPNE*



*I will say that I'm proud of being Tunisian when we will have less unemployment. But now, I'm not proud. – Rural woman*



*The feeling of citizenship, that I love my country and that I want to be an active citizen. – School student*



*Whatever happens and no matter how many obstacles I face, I will always love Tunisia and do my best to find a way. – Participant with disability*



This suggests that patriotism, coupled with honest critique of Tunisia (from an ingroup member), may be effective in climate communications.



*Tunisians are patriotic on the inside. They just need motivation and they need someone to push them to make efforts. – Association member, ATPNE*



*If we apply the law, we will be the best country in the world. – Association member, ATPNE*

## A democratic, free and progressive country

People across many different Narrative Workshops expressed pride in a Tunisian culture of democracy, freedom and women's rights, understanding them as achievements distinguishing Tunisia from other MENA countries. Despite the challenges the country faces, the perception of Tunisia as a free, democratic and progressive country is clearly important to many of its citizens and potentially a powerful part of messaging in Tunisia.



*Tunisia is the light in the Arab world, thanks to freedom and rights. – Association member, APED*



*The best thing that we gained is democracy and freedom; although we can't see their outcome now, it takes time to see it. – Craftsman*



*Women have started to go to school since independence and I am proud of this. – Rural woman*



*I think that we are distinguished thanks to freedom. – Rural woman*



*Compared to other countries, we have democracy and freedom. – Civil society activist*



*In Tunisia, we are advanced compared to other countries regarding many sectors, such as education and health. – Fisherman*

## Accountable, honest governance

In the workshops, however, there was tension between pride in democracy, as well as disappointment about the way the new democratic governance was being implemented in practice.

The workshops were carried out between the first and second round of Tunisia's 2019 presidential election, meaning that political issues may have been particularly prominent in the participants' thoughts. Many were critical of the country's development and the government's role in running the country.



*The problem starts with the parliament and how they are not doing their job. – Participant with disability*



*I think that public schools are getting worse because of the teachers' lack of honesty. – Civil society activist*



*I am proud but I feel disappointed about the socio-political situation sometimes. – Association member, APED*



*Politicians have power and they are the decision-makers. They don't respect our trust in them and they are the only responsible party for our problems. – Rural woman*



*If we succeed in fighting against corruption (political, economic and social), we can improve our situation and that of the next generation. – Civil society activist*



*I think that the most dangerous thing is floods, especially when this affects the roads. When the Ministry of Education announces the cancellation of classes in times of rain, it does not mean that they are taking preventive measures but that they are avoiding responsibility. – Participant with disability*

Messages that emphasise how the **government is accountable to the people on climate** and that it needs to be open, accountable and honest about what it is and isn't doing are likely to be effective in this context.

## Coming together in a time of disruption

Tunisians have lived and are continuing to live through a time of considerable disruption, involving profound changes to their governance as well as significant social shifts and economic difficulties. This feeling of change – and the fact that the revolution has meant very different things to different people – was evident in many people's statements.



*There has been a regression in values for all the generations. There was a boom of values after the revolution but now things are going on the wrong way. – Civil society activist*



*The social relationships are regressing. People and relatives are gathering less and less during celebrations. – Young person*



*In the past, the family was more solid, but now we rarely meet and we are very obsessed with our smartphones. I can feel that the social bond is disappearing. – Civil society activist*



*I had two shops before the revolution and after it only one of them remained. ... My life turned upside down. We were having a decent life. Now, things have become difficult. We are thinking of the future of our children and we're afraid of it. – Craftsman*



Many participants, however, also reflected that Tunisians are able to come together in times of crisis.



*I want to talk about the bright side of Tunisia, about the revolution, for example, and how people help each other in natural disasters like the floods that happened in Nabeul last year.*  
– Association member, APLM



*The Tunisians and especially youth are very proud of being Tunisians. This is proven by what happened in the revolution when they were not scared and protected their neighbourhoods. I believe in youth and what they can do to improve this situation and I hope that things will get better.*  
– Association member, ATPNE

The idea of a movement driven by the people is a powerful one for potential communication on climate change action.



Tunisian man harvesting mussels in Bizerte Lake, Tunisia.  
Photo: [EU/NEIGHBOURHOOD INFO](#)  
(CC BY-NC-ND 2.0)



## Respecting natural resources

Participants in the groups acknowledged the natural resources that Tunisia possesses and largely expressed disapproval of people who disrespect nature. Messages tapping into the idea of respecting nature and the land may be an effective way to talk about climate change.



*In Tunisia, we have everything – desert, sea, nature. I hope that everyone gets the opportunity to travel to be conscious that our country is a treasure.*  
– Association member, APLM



*We have enough sun in Tunisia and the whole world is encouraging the use of solar energy.* – Fisherman



*There is also no respect, for example those who throw their trash in the street.* – Association member, APLM



*We have an environmental problem on the beaches. A large number of random dumps on the beaches pollute the sea water.* – Association member, APED

## Food!

While no one directly linked food to climate change, Tunisian food was a source of pride for people in some groups. Some also expressed concerns about increasingly processed diets and how climate can negatively affect Tunisian agriculture. Connecting food as a source of pride and identity for Tunisian people with the ways in which a changing climate could affect crops and food security may be an effective messaging strategy.



*A Tunisian person asks about the ingredients of a dish before eating.* – Association member, APLM



*Moderator question: 'What are the things you don't want to change in Tunisia?' Answer: 'Food!'* – School student



*Our lifestyle changed. We used to eat biological food but now we are consuming more processed food.*  
– Association member, APED



*There is a difference in the quality of our crops. The agriculture is getting worse.* – Rural woman



*The thing that has changed in a bad way is our eating culture and our consumption of processed food. I am afraid that it will lead to the appearance of new diseases in the next generation.* – Association member, APED



# Approaches to talking about the causes of climate change

## Expand awareness about the causes of climate change

One issue for climate communication in Tunisia may be a low awareness of the causes of climate change. Climate literacy could be improved by focusing on linking specific human actions to climate change and clarifying common misconceptions.



*Our lifestyle has changed. We are using lots of air conditioners and more big buildings and this affected the weather.* – Craftsman

Some group members directly pointed to human activity as the cause of climate change, describing concrete behaviours. In general, however, participants had a low understanding of the causes of climate change. They repeated misconceptions, including:

### » Linking climate change to the hole in the ozone layer:



*The ozone layer is getting bigger and this causes heat and increase in temperature.*  
– Rural woman



*Climate change includes two aspects: natural and non-natural. The natural is the natural disorders and the non-natural is what humans caused, like the ozone hole.* – Association member, APLM

### » Confusing climate impacts with causes of climate change. Participants often cited impacts such as floods, pollution and desertification as causes of climate change:



*I would say pollution, desertification and constructing buildings in agricultural areas.*  
– University student

Moreover, some participants appeared to lack understanding of personal actions that contribute to emissions. When prompted to offer suggestions for how to adapt to the impacts of climate change and extreme weather, people across several groups suggested using air conditioners *more*, to adjust to rising heat.



*We will try to use an air conditioner in case of heat.*  
– Rural woman



*We would resist [climate change] by using air conditioning and drinking more water.* – Association member, APED



*We are developing technologies to adapt to this climate change, such as air conditioning and renewable energy.*  
– University student

While it rarely emerged without prompts from moderators, participants in the research agreed that human activity in the fossil fuel industry (coal, gas and oil) was responsible for climate change. In the student group, however, participants were also keen to highlight that there are other reasons.



*I think that there are other factors like deforestation and fires happening in forests, like what happened in the Amazon.* – University student



*This is logical, but this cannot be the main reason behind climate change.* – School student



*I partially agree because there are other forms of pollution.* – School student

Showing that particular human actions at the social and individual level are causes of climate change is important for future climate communication in Tunisia.

## Respect for Tunisia: global power dynamics

One way to frame climate change causes may be to draw on issues of global inequality. People from different workshops talked about exploitation and global power disparities, both in the context of the environment and more widely.

Issues of exploitation by more powerful countries resonated with many groups (students, association members and workers). Association members in particular related specific examples where more powerful countries and entities had taken advantage of the Tunisian people.



*Our country doesn't encourage smart people to work and improve the situation in their country.* – Craftsman



*We are a poor country and our factories don't have the means to lessen their waste.* – Craftsman



*Strong countries like America are experimenting their projects of nuclear power in poor countries. ... Poor countries are suffering from their problems and their lack of care for nature and environment.* – Association member, ATPNE



*In the south of Tunisia near Ben Guerdene, there is a military area. Americans came to do some experiments with gas because they can't do them in their countries. That area was supposed to host a project of solar energy. However, nothing has been done yet.* – Association member, ATPNE

Similar discussions emerged spontaneously between school and university students in discussions about negative changes in the world. University students mentioned clashes between nation states, particularly power imbalances, wars and injustice, as key things they would like to change about the world.

As 'respect' was a key value raised by all groups, this could be described as nation states having a lack of respect for each other on the global stage. The school students' workshop felt strongly about this.

“ I hate the logic of the strong and the weak, for example when a country colonises a weak one to take its resources. – School student

“ I want people to respect each other. I want to stop wars and colonisation. – School student

“ I want the natural resources to be gathered and distributed equally over the world. – School student

“ I don't like the disrespect for nature in some countries. The lack of help for poor countries. – School student

## Climate transition to reduce unemployment

Inequality, unemployment and economic crises were cited as problems Tunisians face in the present and anticipate in the future. Young people and rural women in particular expressed fears and concerns that they would not be able to find a job. Climate communications should not ignore these concerns.

“ When I have money and am in a good situation, I would be proud, but for the time being I am not proud. We are tired of knocking on the closed doors of employment. – Association member, APED

“ I'm afraid that I won't find a job after my long years of studies. – Rural woman

“ There will be an economic crisis in future and I am worried about the youth. – Craftsman

“ I hope that I will find a job to become stable. – Rural woman

“ When I graduate, I will either not find a job or I will find a job with a low salary; I will become pessimistic. – Association member, APLM

“ I'm afraid for the future of youth and I hope that they will be able to achieve their dreams and to improve their situation. – Rural woman

One strategy may be to discuss how climate change is likely to reduce future employment prospects. Another possibility to explore is whether climate action can be discussed as a way of addressing unemployment and other economic issues. A few participants suggested this.

“ I think that it would be beneficial to invest in and create job opportunities with this money and use renewable energy instead of importing energy. – University student

“ We should value our waste and to make energy out of it. ... It is our responsibility to take the initiative and make an energy revolution. We don't like orders, so we should start to take action. – Participant with disability

# Approaches to talking about the impacts of climate change

All the groups were concerned about climate change impacts. The most concerning impacts overall were heat, drought and floods. In contrast participants expressed very low concern about desertification, forced migration and immigration and sea level rise.

'Abnormal changes to seasons' came up spontaneously in almost all groups and appeared to be apparent to most workshop participants. This could be drawn upon in climate communications.



*Now we have only two seasons, which are winter and summer. – Rural woman*



*The seasons no longer come in time. – Fisherman*



*Disorganisation of seasons. – Association member, APED*



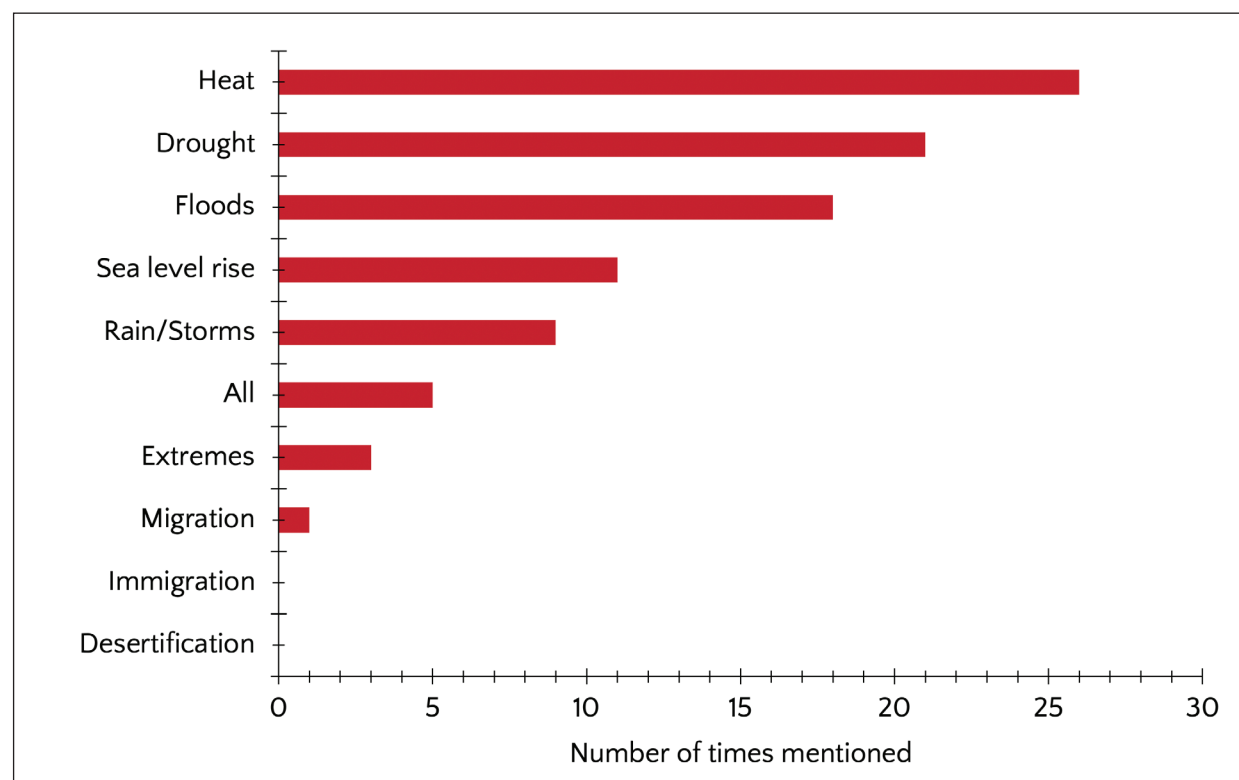
*Our grandparents said that clear and separate seasons no longer exist. – School student*

Members of all groups agreed that the impacts of climate change would affect their lives personally, some in a very matter-of-fact way.



*Yes, of course. – Rural women, university students*

**Figure:** The most concerning impacts of climate change according to the Narrative Workshop participants.





## Heat

The topic of heat could be a powerful starting point for discussions. Participants in Narrative Workshops linked increasing temperatures to a range of other physical and societal climate impacts and saw it as a catalyst for other problems.



*The heat will lead to the increase of sea level, floods and drought. ... I think that the increase of heat is the most dangerous effect.*  
– Association member, APLM



*Heatwaves because they affect trees and the individual's psychological state.* – Association member, APED



*Heatwaves, because they affect the elderly and infants and we are suffering from this effect in Tataouine.*  
– Association member, APED

## Drought

Despite the fact that the Narrative Workshops did not take place in drought-struck areas, participants were concerned about drought, especially in the south. Their concerns centred around the effect of drought on agriculture, one of the most important economic sectors in Tunisia.

However, while drought was spoken of, participants in the workshops showed a relatively low awareness of the risk of water scarcity. Fishermen were the only participants who discussed the issue of water shortages in depth, although it was raised by a few participants in other groups as well. This is a crucial issue to communicate, as Tunisians live in one of the most vulnerable regions in the world to water scarcity. Messaging around impacts of climate change could concentrate on what Tunisians may lose, both in terms of economic productivity and in terms of quality of life and water security.



*In the south, the agricultural sector is very important. Thus, what bothers me the most is drought because it will cause poverty and people will lose their jobs.*  
– Rural woman



*What bothers me is drought. Gabes is an arid and agricultural area. The lack of rain and drought affects our crops.* – School student



*[Drought] will cause the shortage of drinkable water.*  
– Fisherman



## Floods

Disasters like severe flooding remain in cultural memory. Many participants in both the north and the south talked about floods, particularly recent floods in Nabeul. Tunisians in this research appeared to be aware of and concerned about these serious local impacts and were beginning to make the connection to climate change.



*I don't have a big idea of climate change but what I know is that natural disasters are due to climate change and they affect our infrastructure (floods for example). – University student*



*Floods in Tunisia. Winter in Tunisia is hellish. – School student*



*I wrote “floods” since we lived in Nabeul last year and I saw the danger and I lived it. – Association member, APLM*



*Stronger storms and floods, because I study in Grombalia and I can't go back home easily when they happen. – School student*

## Health and societal impacts

Participants in the Narrative Workshops readily connected physical climate impacts to economic, societal and personal impacts. A number of people said all climate impacts worried them because of their effect on Tunisian society. Health in particular seemed to be a salient concern and a potential avenue for future climate communications.



*All of them. They will have an effect on the economy, agriculture and health. – School student*



*I am scared of all of them because they will have an effect on the economy, agriculture and health. – Rural woman*



*There is a development of new diseases. – University student*

The group of people with disabilities did not discuss concerns about climate impacts extensively, but when they did, discussions centred on the effect that climate impacts would have on the disabled, particularly in terms of mobility and access.



*This is due to the bad infrastructure and it limits the mobility of people and their safety. – Participant with disability*



*I would say rain, floods and storms because they oblige me to cancel all my meetings. – Participant with disability*

# Approaches to talking about renewables

Almost all of the group discussions about renewables centred around solar power and there was a lot of interest in photovoltaics. Only a few participants had installed renewable energy themselves, all using solar hot water systems.

“ In Tunisia, we have the sun and we can use the sun to generate energy but we are not making good use of it. – Participant with disability

“ Sun is the best source of energy.  
– School student

“ Solar energy is the solution to generate energy all over the country. – Participant with disability

“ One participant mentioned wind energy: ‘I think that wind turbines have very bad effects on birds.’  
– Association member, ATPNE

**TABLE:** Top three benefits and problems associated with renewable energy according to the Narrative Workshop participants.

Benefits	Problems
Better for the environment	Cost of installation
Reducing energy import costs	State may seek to profit
Unlimited resource	Lack of training/know-how

Participants agreed that the cost of implementing solar energy at an individual level was too high and that government action was inadequate. Overall, there was strong support for government action on renewable energy and readiness to act. The conversation around renewables needs to transcend immediate concerns about costs, and instead focus on energy independence and helping Tunisia to progress.

“ The installation of solar energy is expensive, but solar energy is free and environment friendly. I think that, by using renewable energy, Tunisia will save much money because it will reduce the importation of energy. – University student

“ We are not looking for serious solutions for pollution and it is high time to talk about solutions. – School student

“ We are living in a time where the people are aware, but the state is not. – Association member, APLM

“ We have the resources but we don’t make the best use of them. – Association member, APLM

“ It is a natural source of energy. If we start using it, we will reduce the costs of energy and save much money. However, I don’t understand why the state is not serious in implementing this project more effectively. – Association member, ATPNE

# Approaches to talking with different audiences in Tunisia

## Talking with older generations

One issue that resonated with people in the groups with older participants was their relationship with future generations. Talking about climate change action as a way to secure the future – of the country, of industry or simply of the next generation – may be effective for older generations in Tunisia.

The group of fishermen expressed concerns about passing on the trade and remarked how few young people wanted to take up fishing as a craft. Rural women also discussed their children and talked about their families with a lot of enthusiasm. They cited family as a key element of their daily happiness and many of the older rural women had fears and hopes for their children rather than for themselves.



*We are thinking of the future of our children and we're afraid of it. We can no longer bear this life. – Craftsman*



*I hope that I see more youth in the sector. – Fisherman*



*The sector is dominated by the elders and youth are reluctant. – Fisherman*



*Even if there is nothing to make us proud of our country, we should leave something for the future generation to be proud of the country. – Rural woman*



*I am a housewife and I hope that my children will have a better future. – Rural woman*

## Talking with young people

Younger people spoke about individual freedom and the celebration of differences. Students were proud of having diverse discussions with their friends, of having diverse interests and of having the ability to exercise the freedom and autonomy to study what they liked. Young people may be particularly receptive to conversations about climate change that take new and different perspectives and are respectful of differing opinions.



*We should change our attitude towards people. We should accept ideas and opinions. We should not apply our opinions to everyone and to respect people the way they are. – Association member, APLM*



*We should work on all the values that we talked about. – Association member, APLM*



*I want to meet people who have the same mindset as me. I like the freedom of thought and freedom in everything. – School student*



*I believe in individual freedom and freedom of thought. Each one has the right to think however he wants without caring about what people say. – School student*



## Talking with tradespeople

The 'worker' or 'tradespeople' workshops were unique in our sample because they were people whose livelihoods depended on particular trades. Conversations about climate change with these groups should address climate impacts that affect their livelihoods.

### Fishermen

The group of fishermen very quickly brought up environmental issues without any prompting from the moderator. At the very beginning of the discussion, fishermen spoke about their fears: about how the marine environment was changing and being mishandled.



*I hope that there will be more control over indiscriminate fishing, they fish everything and they damage marine resources. – Fisherman*



*What scares me is the pollution of the Gulf of Gabes. – Fisherman*



*I want the municipality to stop throwing waste in the sea. The sea is our capital and it is unacceptable that they pollute it. – Fisherman*



*I am afraid of the indiscriminate fishing that is damaging the situation of fishermen. – Fisherman*

Fishermen expressed a high level of concern about climate change and talked about their experiences of scepticism in others they had spoken to. This is a group whose livelihoods have been directly affected by climate change, who are highly aware of the consequences and who are motivated to change things.



*All of us are interested in this topic. – Fisherman*







*In many regions, the characteristics of global change can be clearly noticed, but I think that one of the characteristics is that the marine species are changing. The increase in the sea temperature caused the extinction of some species and the appearance of some others.*  
– Fisherman



*I think that climate change affected the fish stocks. There is a change in the fish species.*  
– Fisherman



*Some people say that they doubt that there is a climate change or that we are exaggerating when we talk about it.* – Fisherman



*The sea has become infertile because of humans.* – Fisherman



*I think that one of the characteristics is that the marine species are changing. The increase in sea temperature caused the extinction of some species and the appearance of some others.* – Fisherman



*People say there is no drought as long as there is rain. However, they don't know that the quantities of rain are not sufficient.*  
– Fisherman

For climate communications in Tunisia, this story is a clear, authentic example of the devastating effects of climate change that are happening now.



Women at work in Djerba, Tunisia.  
Photo: [Roberto Faccenda](#) (CC BY-SA 2.0)



## Craftsmen

Like the fishermen, craftsmen were primarily concerned about the negative impacts that environmental changes had on their livelihoods – in this case, tourism. The participants in this group expressed mixed feelings about the revolution because it brought about freedom and democracy, but in combination with other factors like fear of terrorism, also drastically decreased tourism in that area.

Unlike association members and students, craftsmen said their conversations mostly look towards the past and discuss how things were pre-revolution. This group was very concerned about their living conditions and discussions of climate change were couched in the context of its effect on tourism.



*We always talk about the history; we are nostalgic. – Craftsman*



*I had two shops before the revolution and after it only one of them remained. ... My life turned upside down. We were having a decent life. Now, things have become difficult. ... Our purchase power has decreased. In the past, it was easy to buy meat, fruit, etc. However, now it is difficult.*  
– Craftsman



*When the Gulf crisis ended, the tourism was back but not like it was in the past. ... We don't have tourism in the south. There are some people who make tourists afraid of the south because of "terrorism", they say. Now, we want tourism to become as it was before.*  
– Craftsman



*Our situation was good before the revolution: we had tourism; all the handicraft shops were working.*  
– Craftsman

## Talking with people with special needs

The group of people with disabilities was particularly concerned with issues of mobility and safety during natural disasters such as storms and floods. Tunisia's infrastructure was a big concern.



*[Climate change] is not directly linked to people with special needs, but I can see climate change through the natural catastrophes happening in Tunisia.*  
– Participant with special needs



*Climate change is very dangerous; it affects people and agriculture. As a disabled person, I cannot go out when there is heavy rain.* – Participant with special needs

# Language to test further, use carefully or avoid

## **AVOID** Negative statements about personal responsibility

Statements that spoke about personal responsibility in very negative terms tended to receive mixed reactions from the Narrative Workshops (fishermen, craftsmen and university students responded particularly negatively), e.g. **‘Things will only change when we change ourselves, control our desires and stifle our greed.’**

Statements such as **‘The world has been polluted and desecrated by our dirty fuels and our greed for material things’** were unpopular across most groups.

When talking about personal responsibility for climate change in Tunisia, it is important to be aware of the comparative role that people in Tunisia have had in creating climate change, as there is a tension between wanting to improve and become a developed country and feeling like Tunisia has been exploited by the more developed, powerful countries. For instance, the statement **‘We are all responsible for climate change and we all need to do something at all levels’** was met with disapproval from some groups (fishermen and APED) and with approval from others.

A better option may be to use positive framing to talk about responsibility. Participants generally preferred messages that conveyed positivity, e.g. **‘We should be the *khalifah* of Creation.’**

## **AVOID** Skirting around the truth or sounding like a politician

This statement from our narrative passages was disliked across most groups: **‘Tunisia has very good environmental laws. We can be proud that we are one of the only countries in the world to commit to action on climate change in our national constitution.’**

This may be because participants preferred to be honest and genuine and disliked language that sounds like what a politician might say. Participants expressed cynicism about the government; many mentioned that environmental laws were not being upheld. Climate communication in Tunisia should not embellish or avoid the truth and should try to avoid sounding like a political speech.



*I wonder why the law is not applied in Tunisia. I want to know the source or the parties to hold accountable for the non-application of the law.*  
– Participant with disability



*We should not just say idealistic speeches but we should move to action and do something.*  
– Participant with disability



*Many people don't understand what is global warming and the state should take serious measures and laws.* – School student



*We should create mechanisms to apply the existing laws. There is a constitutional authority of the environment but it is not active.* – Association member, APED



## TEST Young vs old

In our analysis, we found suggestions of a divide or disagreement between generations. Many people across all generations felt that societal values were regressing. However, a few craftsmen pointed to the youth as the cause, expressing concern about young people lacking respect and not being raised properly. On the other hand, the younger participants saw themselves as more aware and more responsible and spoke a lot about valuing respect, particularly respecting a difference of opinion. Whatever their differences, both sides value respect and seek to be respected.



*The generation of 2000 was not brought up appropriately.* – Craftsman



*I am proud of Tunisia's youth.* – Rural woman



*We should respect the different opinions.* – School student



*The social relationships are regressing. People and relatives are gathering less and less during celebrations.* – School student



*I feel that our youth are aware and more responsible than older generations.* – University student

There may be tensions within this generational divide arising from the recent social and political upheavals in the country, particularly regarding how this has changed the prospects for young and old generations in different ways. Further work is needed to understand how these different audiences may respond to particular climate messages.

One issue that seems to be up for debate is the battle between modernisation and tradition. There were only a few comments about traditional celebrations in the Narrative Workshops, **and even fewer mentions of religion**. This may be an important avenue for future work.



*When the weather is arid and rain is not enough it is God's will, but we should adapt ourselves to it. However, climate change is different because it is not natural and can be very dangerous.* – Participant with disability



*Our traditions like the celebrations and all.* – School student



*What I think is wrong in our way of living is blindly following traditions to the point that the human being spends much money in religious celebrations. I think that one should not stick to religious ceremonies like buying the sheep for Adh'ha if one doesn't have money.* – School student



*I want to cut with the old traditions that have nothing to do with our actual life.* – School student

## Global narratives: a new model of communications research

Citizens from many poorer regions of the world are more concerned about climate change than those in wealthier countries, according to a number of global surveys.<sup>100</sup> Despite this, very limited attempts have been made to engage people who live in countries likely to be profoundly affected in the challenge of climate change and which have done the least to cause the problem.

Most in-depth research on climate change communications and engagement has been carried out in a narrow and unrepresentative set of nations, particularly the UK, USA, Canada and Australia. The research that does exist outside these countries tends to consist of large-scale surveys of public awareness, providing valuable insights but rarely containing information about the cultural and social factors that are so important in understanding how best to communicate climate change in different nations and communities.<sup>101,102</sup>

This is a problem because, according to a large body of research, values and culture play a powerful role in shaping how people understand climate change and whether they are motivated to take action in response.<sup>103,104</sup> Messages aimed at a few countries in the Global North may not be appropriate or effective for the very different economies and cultures of southern countries.

**The global narratives methodology has been developed to:**

- » **Develop narratives:** test and compare specific language around climate change, land and renewable energy in different countries around the world, and use this to create distinct and culturally specific narratives around climate change that resonate with and inspire people to take action. The research methodology used goes beyond traditional focus groups and asks searching questions about people's values, identity and hopes for the future to add confidence and richness to the findings.
- » **Build capacity:** involve partners in all stages of design, content and implementation and pass on professional communication and research skills to national partners, applying a 'citizen science' approach to social science research. This makes high-quality research affordable in low-income countries to support current and future communications work and build confidence.
- » **Shift the narrative:** apply learning and insights from the research to transform the communication approaches of international advocacy organisations and climate institutions around the world.

## Tunisia research methodology

The Tunisia narratives project ran from September to December 2019. Following a two-day training workshop facilitated by Climate Outreach in September 2019, local partner organisations ran nine Narrative Workshops across Tunisia, with 107 participants in total. They met again afterwards for an evaluation workshop to compare findings, evaluate the process and refine the narratives.

The Narrative Workshop methodology developed by Climate Outreach is a form of qualitative research that explores the language and narrative around climate change and its solutions. There are two aspects to the methodology distinguishing Narrative Workshops from other forms of focus group research:

- » Use of a structure and format which promotes peer-to-peer dialogue.
- » Grounding the dialogue in participants' values and identity, which are the sources of their attitudes.

This approach is designed to allow participants to engage in conversations about climate change and respond to the narratives provided in their own terms with reference to the things that matter to them, rather than seeking to generate a debate on the basis of complex and abstract science. The process therefore begins by exploring participants' own values, concerns and aspirations rather than putting forward a particular policy proposal or technological response. This makes the methodology applicable across diverse cultures and with all sections of the population.

Each Narrative Workshop follows the same script, leading participants through six successive topics:

- 1 Values:** what do you care about? What do you dislike? What makes you proud of who you are?
- 2 National identity:** how do you feel about Tunisia and your place in it?
- 3 Changes:** what changes have you noticed and what concerns do you have for the future?
- 4 Climate change:** what does it mean to you and what do you think causes it?
- 5 Climate change impacts:** what are the impacts and how will you and others cope?
- 6 Renewables:** what do renewables mean to you and can they replace fossil fuels?

The final activity tests short passages of narrative text. The narratives present climate change and renewables around different themes. Participants are given printouts of the narratives and asked to mark the words or sentences they like in green and the ones they dislike in red, leaving the ones they neither like nor dislike unmarked.

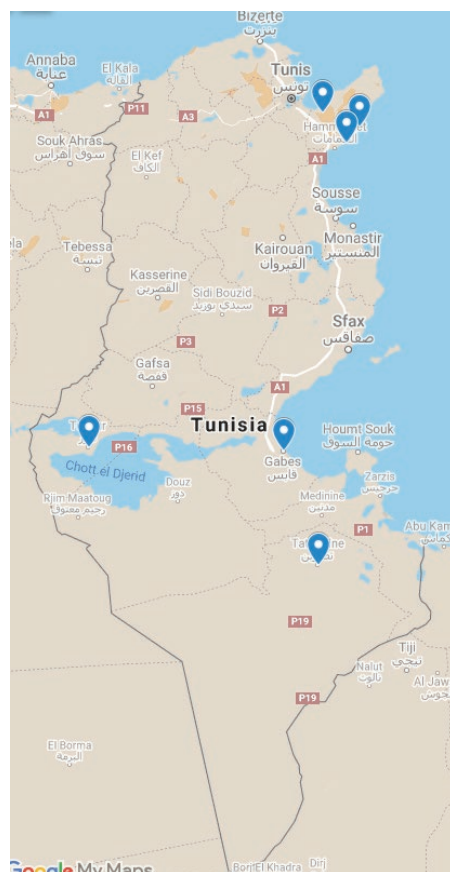
This method highlights the specific words or phrases that work best (or fail) and enables an easy comparison between the findings of different Narrative Workshops. The facilitator, scanning the marked copies, then leads a discussion about why people like or dislike specific narratives and draws out general conclusions from the group.

## Tunisian narrative workshop demographics

The table below shows the demographics of the people in the Narrative Workshops.

		Activists, engaged			Students		Workers		Marginal Groups	
		Members (APLM)	Members (ATPNE)	Civil Society activists (APED)	High school	University	Fishermen	Artisans and shop-keepers	Disabled people	Rural women
Number of participants		21	14	10	12	9	13	8	9	11
Location		Nabeul	Korba	Tataouine	Soliman	Gabes	Djerba	Tozeur	El Kram	Gafsa
M		15	6	6	6	3	13	8	8	0
F		6	8	4	6	6	0	0	1	11
Age	<20									
	20-30									
	30-40									
	40-50									
	50-60									
	60-70									
Highest level of education attained	Primary									
	Secondary									
	University									
	Post-grad									

\*Red boxes indicate key demographics that represent that group.



Local partners were asked, in their initial training, to identify their chosen target audience and outline its demographics (its composition by age, gender, educational level, income, and political values). They were then instructed to recruit their Narrative Workshop groups carefully to be representative of their wider audience. The composition of the sample therefore reflects the priorities of the local partners, in particular engaging youth and rural communities.

The methodology has some limitations. As shown in the map on the left (blue markers indicate Narrative Workshop locations) most of the groups took place in the north-east and in the middle/south of Tunisia. The vulnerable northwest forest region is not represented. Three Narrative Workshops were run in the governorate of Nabeul – in Al-Maamoura, Selimane and Korba.

The overall sample also has a higher proportion of better educated participants than the national population. Some communities – for example farmers, foresters and people employed in the tourist industry – were not represented. More men than women participated in the narrative workshops. The results are therefore indicative and should be considered in the context of these limitations.



## The test narratives

The project tested three climate change narratives in detail. Some workshops had very mixed reactions to the narrative passages; others had neutral or virtually no responses to them. This suggests that a lot more work can be done on refining narratives for particular groups. For example, narratives tailored to the needs of those who have a disability could include statements about how climate change will affect mobility and access.

‘Renewable Opportunity’ was by far the most popular narrative overall. It focused on the prospect of developing Tunisia’s energy industry by making use of the abundance of natural sunlight. It spoke positively about making better choices with Tunisia’s resources, improving the economy and having an independent, democratic energy supply.

The second most popular narrative was ‘Responsibility’, which explored narratives involving fairness, inequality, power imbalances and responsibility to act on climate change. ‘Impacts’ addressed the impacts of climate change, from recent natural disasters such as flooding, heatwaves and droughts to future impacts such as damage to the date and olive industries. This was the most negatively framed passage and was also the one that received the most negative responses from participants.

### Impacts

*In Tunisia, we have always been close to the land and nature. So we can see that the weather is changing.*

*Recent disasters have been worse than anything we’ve experienced before. We have droughts. Last year we had a heatwave that was hotter and longer than ever before. Each year we get flash floods, for example recently in Siliana, Bizerte and a year ago in Nabeul.*

*This is a sign that we have damaged the world. Things are out of balance. The weather is not normal. It is strange and weird.*

*Scientists say that increases in extreme weather are caused by global climate change and predict that these impacts will continue to increase. The biggest danger is from drought, which could dry up our oasis and destroy our date and olive industries. The Sahara Desert is marching north at a rate of 50 kilometres a year and our farmland is turning into desert. The rising sea level could threaten all of our coastal regions and our tourist industry.*

*Above all, climate change is a moral issue. It is the most vulnerable people – children, elderly, sick and disabled – who suffer the worst health impacts of these increased temperatures and extreme weather.*

*So we need to prepare for these impacts, protect the people we love and defend our way of life. We need to take action to restore the natural balance.*

## Responsibility

*Tunisia has very good environmental laws. We can be proud that we are one of the only countries in the world to commit to action on climate change in our national constitution.*

*But good words are not enough. Politicians are to blame for not enforcing these laws and are not taking action. They are letting us all down and damaging our national future.*

*Climate change is a matter of fairness. It is not fair that a few energy and oil companies can make huge profits from destroying our climate. It is not fair that the richest people produce the most pollution when the poorest people will be worst affected by climate change. The rich countries have caused the problem so should provide funds and technology to Tunisia to develop our solar energy and adapt to climate impacts.*

*We are all responsible for climate change and we all need to do something at all levels. The government needs to enforce its laws and demand action by companies. Local governments and communities need to work together to make a transition to clean energy. And we all need to look at our own lifestyles.*

*We can start by avoiding waste. Surely we can all agree on that.*

*Things will only change when we change ourselves, control our desires and stifle our greed. If we need to make sacrifices we will do so as our duty to care for the world we inherited from our ancestors and pass it on to our children.*

*We don't need to shout about it, though. We can do it modestly through our actions, live in moderation, taking from the world what we need but not everything we desire.*

*In Tunisia, we have faced many problems together so we know how to pull together, help each other out and build strong communities. If we take action on climate change, we can come together and find ways to lead better, simpler and more fulfilling lives.*

## Renewable opportunity

*Unlike our neighbours, we have never been a major oil country. We used to be self-sufficient, but we exported most of our resources and now we are becoming ever more dependent on other countries. Every year we send 6 billion dinar out of the country to pay for the fuel we import.*

*But this doesn't make sense! We have unlimited amounts of free natural sunlight and wind that could generate clean energy to meet all our needs. Solar is perfectly matched to our energy needs, providing the greatest output in the summer when our energy system is pushed to breaking point.*

*If we developed this clean natural energy we could provide thousands of jobs, create new business opportunities and even attract invest billions of dollars in new investment to export power to Europe.*

*And if we were not importing energy, just think what we could do with that 6 billion dinar to improve the health, education and opportunities for our people.*

*At present, solar energy provides only 1% of our energy. The government has a plan to increase this to 30% by the end of the next decade, but we should go all the way and be self-reliant on clean energy. With the current instability across the Middle East, we cannot depend on any other country to supply us.*

*Because the sun shines everywhere we can generate power everywhere, in every region, town and village. Shouldn't an independent democracy like Tunisia have an independent and democratic energy supply, sharing income across all our people and not just handing it to the big energy companies and their foreign suppliers?*

## The gift

*The natural world is a precious gift, but through our ignorance, arrogance and greed we have damaged that gift, harmed the Earth and broken our relationship with creation.*

*The world has been polluted and desecrated by our dirty fuels and our greed for material things.*

*We should be the khalifah of Creation. We are all connected to the natural world, to the water and to the air. And we are connected to each other.*

# References

1. Touchan, R. *et al.* Long-term context for recent drought in north-western Africa. *Geophysical Research Letters* **35** (2008).
2. Jamel, I. Tunisian Research Seeks to Counter Climate Threats. *Al Fanar Media* (2018).
3. Mora, C. *et al.* Global risk of deadly heat. *Nat. Clim. Chang.* **7**, 501–506 (2017).
4. Jamel, I. Tunisian Research Seeks to Counter Climate Threats. *Al Fanar Media* (2018).
5. Foroudi, L. Thirsty crops, leaky infrastructure drive Tunisia's water crisis. *Reuters* (2019).
6. Chebil, A., Souissi, A., Bennouna, B. and Frija, A. Analysis of the competitiveness of wheat and orange in Tunisia under water shortage scenarios. *Arabian Journal of Geosciences* **12** (2019).
7. Verner, D. *et al.* Climate Variability, Drought, and Drought Management in Tunisia's Agricultural Sector (2018). doi:10.1596/30604.
8. Attia, N. and Chebaane, O. *Urgence écologique: la Tunisie cherche désespérément un programme vert* (2020).
9. Blicharska, M. *et al.* Steps to overcome the North–South divide in research relevant to climate change policy and practice. *Nature Climate Change* vol. 7 21–27 (2017).
10. Schäfer, M. S. & Schlichting, I. Media Representations of Climate Change: A Meta-Analysis of the Research Field. *Environmental Communication* vol. 8 142–160 (2014).
11. Henrich, J., Heine, S. J. & Norenzayan, A. Most people are not WEIRD. *Nature* vol. 466 29–29 (2010).
12. Minawi, M. & Abudahab, N. Views on Climate Change in the Middle East and North Africa. [https://www.ipsos.com/sites/default/files/ct/news/documents/2020-07/views\\_on\\_climate\\_change\\_in\\_mena\\_ipsos.pdf](https://www.ipsos.com/sites/default/files/ct/news/documents/2020-07/views_on_climate_change_in_mena_ipsos.pdf) (2020).
13. McCaffrey, M. Increasing Climate Literacy, Engagement and Action on Local to Global Scales. *Geophysical Research Abstracts: EGU General Assembly 2018* 20, (2018).
14. Arto Blanco, M., Meira Cartea, P. Á. & Gutiérrez Pérez, J. Climate literacy among university students in Mexico and Spain: influence of scientific and popular culture in the representation of the causes of climate change. *International Journal of Global Warming* vol. 12 448 (2017).
15. Gilden, J. & Peters, E. Public Knowledge, Scientific Literacy, Numeracy, and Perceptions of Climate Change. *Oxford Research Encyclopedia of Climate Science* (2017) doi:10.1093/acrefore/9780190228620.013.305.
16. Khalid, F. *et al.* Islamic Declaration on Global Climate Change (2015).
17. Marshall, G., Corner, A., Roberts, O. and Clarke, J. *Faith and climate change: a guide to talking with the five major faiths* (2016).
18. Khalid, F. *et al.* Islamic Declaration on Global Climate Change (2015).
19. Briney, A. Geography of Tunisia, Africa's Northernmost Country. *ThoughtCo* (2019).
20. Moncer, W., Esteban, E., Bahri, R., Gaya-Vidal, M., Carreras-Torres, R., Athanasiadis, G., Moral, P., Chaabani, H. Mixed origin of the current Tunisian population from the analysis of Alu and Alu/STR compound systems. *Journal of Human Genetics* vol. 55 827–833 (2010).
21. Central Intelligence Agency. Africa: Tunisia. *The World Factbook* <https://www.cia.gov/library/publications/the-world-factbook/geos/ts.html#field-anchor-people-and-society-demographic-profile> (2020).
22. Tunisia Population 2020. *World Population Review* <http://worldpopulationreview.com/countries/tunisia-population/> (2020).
23. Oxford Business Group. Economic growth in Tunisia stems from government measures and improved exports. *Oxford Business Group* <https://oxfordbusinessgroup.com/overview/trending-upward-growth-expected-pick-thanks-government-measures-and-improved-export-competitiveness> (2020).
24. International Labour Organization. Employment in agriculture (% of total employment) (modelled ILO estimate) (2019).
25. Abdelhafidh, S. and Bakari, S. Domestic investment in the agricultural sector and economic growth in Tunisia. *International Journal of Food and Agricultural Economics* **7**, 141–157 (2019).
26. Bouazza, R. Tunisia's tourism sector shows signs of recovery. *The Arab Weekly* (2020).
27. Norbakk, M. *Women's rights champion: Tunisia's potential for furthering women's rights*, <https://www.cmi.no/publications/5973-the-womens-rights-champion> (2016).
28. Masri, S. M. *Tunisia: An Arab Anomaly* (Columbia University Press, 2017).
29. Grewal, S. *Policy Brief: Tunisian democracy at a crossroads*, [https://www.brookings.edu/wp-content/uploads/2019/02/FP\\_20190226\\_tunisia\\_grewal.pdf](https://www.brookings.edu/wp-content/uploads/2019/02/FP_20190226_tunisia_grewal.pdf) (2019).
30. Abu Dhabi Gallup Center. Tunisia: analyzing the dawn of the Arab Spring. *Gallup* <https://news.gallup.com/poll/157049/tunisia-analyzing-dawn-arab-spring.aspx> (2016).
31. International Labour Organization. Unemployment, total (% of total labor force) (modelled ILO estimate) – Tunisia (2019).
32. Hajbi, M. La Tunisie accusera une contraction économique de 7% en 2020. *Agence Anadolu* (2020).
33. The New Arab. Tunisia premier says virus-hit economy to contract 6 percent in 2020. *The New Arab* (2020).
34. International Republican Institute. New Poll: Tunisians Pessimistic About Electoral Process. *International Republican Institute* <https://www.iri.org/resource/new-poll-tunisians-pessimistic-about-electoral-process> (2019).



35. Jeribi, L. Dégage (Move)! – Situation in Tunisia. *Solidar* (2019).
36. Saleh, H. Disarray in Tunisia boosts support for populists. *Financial Times* (2020).
37. Omar, W.B.H. Results of the 'study on the participation of women and young people in public life and local affairs'. *Heinrich Boll Foundation* <https://tn.boell.org/fr/2018/12/19/resultats-de-letude-sur-la-participation-des-femmes-et-des-jeunes-dans-la-vie-publique-et> (2018).
38. Isbell, T. and Saad, M.N.B. *Despite freedoms seen as growing, Tunisians show limited citizen engagement*, [https://afrobarometer.org/sites/default/files/publications/Dispatches/ab\\_r7\\_dispatchno336\\_perceived\\_freedom\\_limited\\_citizen\\_engagement\\_in\\_tunisia.pdf](https://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r7_dispatchno336_perceived_freedom_limited_citizen_engagement_in_tunisia.pdf) (2020).
39. Al Jazeera. Tunisia election: outsider in lead stuns after most votes counted. *Al Jazeera* (2019).
40. City University of Hong Kong. Climate change impact in Mediterranean region. *Science Daily* (2018).
41. Niang, I. *et al. Africa* (2014).
42. Touchan, R. *et al.* Long term context for recent drought in northwestern Africa. *Geophysical Research Letters* vol. 35 (2008).
43. Verner, D. *et al.* Climate Variability, Drought, and Drought Management in Tunisia's Agricultural Sector. (2018) doi:10.1596/30604.
44. Jamel, I. Tunisian Research Seeks to Counter Climate Threats. *Al Fanar Media* (2018).
45. Mora, C. *et al.* Global risk of deadly heat. *Nat. Clim. Chang.* 7, 501–506 (2017).
46. Jamel, I. Tunisian Research Seeks to Counter Climate Threats. *Al Fanar Media* (2018).
47. Al Jazeera. Tunisia: Record rainfall causes deadly floods. *Al Jazeera* (2018).
48. Waha, K. *et al.* Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. *Regional Environmental Change* 17, 1623–1638 (2017).
49. Verner, D. *et al.* Climate Variability, Drought, and Drought Management in Tunisia's Agricultural Sector. (2018) doi:10.1596/30604.
50. Lelieveld, J. *et al.* Strongly increasing heat extremes in the Middle East and North Africa (MENA) in the 21st century. *Climatic Change* 137, 245–260 (2016).
51. Frijja, A., Makhoul, M., Chebil, A. and Thabet, C. *Potential adaptations of the Tunisian agricultural sector to water scarcity*, [http://erf.org.eg/wp-content/uploads/2017/03/Mic\\_ERF23AC\\_AymenMariemAliChokri.pdf](http://erf.org.eg/wp-content/uploads/2017/03/Mic_ERF23AC_AymenMariemAliChokri.pdf) (2017).
52. Waha, K. *et al.* Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. *Regional Environmental Change* 17, 1623–1638 (2017).
53. Republic of Tunisia. Intended Nationally Determined Contribution: Tunisia (2015).
54. Verner, D. *et al.* Climate Variability, Drought, and Drought Management in Tunisia's Agricultural Sector. (2018) doi:10.1596/30604.
55. Cortina, M. How Climate Change Has Impacted the 2019 Harvest. *Olive Oil Times* (2019).
56. Souissi, M. Climate change threatens Tunisia olive farming. *Phys.org* (2015).
57. FAO Regional Office for Near East and North Africa. Knowledge exchange to Apulia for Moroccan and Tunisian olive oil sector players. *Food and Agriculture Organization of the United Nations*, <http://www.fao.org/neareast/news/view/en/c/459385/> (2016).
58. Zaied, Y.B., Ben Zaied, Y. and Zouabi, O. Impacts of climate change on Tunisian olive oil output. *Climatic Change* 139, 535–549 (2016).
59. IPCC. Summary for Policymakers. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. (2019)
60. Plackett, B. Researchers See Water at Root of Tunisia's Inequality Problem. *Al Fanar Media* (2018).
61. Oualkacha, L., Stour, L., Agoumi, A. and Kettab, A. Climate Change Impacts in the Maghreb Region: Status and Prospects of the Water Resources. *Water and Land Security in Drylands* 17–25 (2017). doi:10.1007/978-3-319-54021-4\_2.
62. Niang, I. *et al. Africa* (2014).
63. Frijja, A., Makhoul, M., Chebil, A. and Thabet, C. *Potential adaptations of the Tunisian agricultural sector to water scarcity*, [http://erf.org.eg/wp-content/uploads/2017/03/Mic\\_ERF23AC\\_AymenMariemAliChokri.pdf](http://erf.org.eg/wp-content/uploads/2017/03/Mic_ERF23AC_AymenMariemAliChokri.pdf) (2017).
64. IPCC. Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp. (2018).
65. Waha, K. *et al.* Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. *Regional Environmental Change* 17, 1623–1638 (2017).
66. Republic of Tunisia. Intended Nationally Determined Contribution: Tunisia (2015).
67. Pashley, A. Tunisia warns of tourism dive if planet overheats. *Climate Home News* (2015).
68. Niang, I. *et al. Africa* (2014).
69. Byers, E. *et al.* Global exposure and vulnerability to multi-sector development and climate change hotspots. *Environ. Res. Lett.* 13 (2018).

70. King, E. Tunisia embeds climate change in constitution. *Climate Home News* (2014).
71. International IDEA. Tunisia's Constitution of 2014.
72. UNDP. Country Profile: Tunisia, *UNDP* <https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/geographic/arab-states/tunisia.html> (2018).
73. Republic of Tunisia. Intended Nationally Determined Contribution: Tunisia (2015).
74. Moisseron, J., Guesmi, K. and Gerin-Jean, M. *Assessing EU-Mediterranean Policies in the Fields of Energy from a Bottom-up Perspective: The Case of Tunisia* (2018).
75. Bouazza, R. Tunisia faces worsening energy deficit. *The Arab Weekly* (2019).
76. Bouazza, R. Tunisia faces worsening energy deficit. *The Arab Weekly* (2019).
77. International Energy Agency. Tunisia. *International Energy Agency* <https://www.iea.org/countries/Tunisia> (2018).
78. Bouazza, R. Tunisia faces worsening energy deficit. *The Arab Weekly* (2019).
79. Cherif, M. and Morella, E. *Project Information Document/Integrated Safeguards Data Sheet (PID/ISDS)* (2019).
80. Cherif, M. and Morella, E. *Project Information Document/Integrated Safeguards Data Sheet (PID/ISDS)* (2019).
81. IRENA. RRA Tunisia Validation Workshop. *International Renewable Energy Agency* <https://www.irena.org/events/2018/Jun/RRA-Tunisia-Validation-Workshop> (2018).
82. Republic of Tunisia. Intended Nationally Determined Contribution: Tunisia (2015).
83. République Tunisienne Ministère de l'Énergie, des Mines et des Énergies Renouvelables. *Plan Solaire Tunisien: plan d'action pour l'accélération des projets d'énergies renouvelables en Tunisie*, <https://www.undp.org/content/dam/tunisia/docs/Publications/Plan%20Solaire.pdf> (2018).
84. Poushter, J. & Manevich, D. *Globally, People Point to ISIS and Climate Change as Leading Security Threats*, [https://www.pewglobal.org/wp-content/uploads/sites/2/2017/07/Pew-Research-Center\\_2017.07.13\\_Global-Threats\\_Full-Report.pdf](https://www.pewglobal.org/wp-content/uploads/sites/2/2017/07/Pew-Research-Center_2017.07.13_Global-Threats_Full-Report.pdf) (2017).
85. BBC. Tunisia attack on Sousse beach 'kills 39'. *BBC News* (2015).
86. Poushter, J. & Manevich, D. *Globally, People Point to ISIS and Climate Change as Leading Security Threats*, [https://www.pewglobal.org/wp-content/uploads/sites/2/2017/07/Pew-Research-Center\\_2017.07.13\\_Global-Threats\\_Full-Report.pdf](https://www.pewglobal.org/wp-content/uploads/sites/2/2017/07/Pew-Research-Center_2017.07.13_Global-Threats_Full-Report.pdf) (2017).
87. Center for Insights in Survey Research. *Public Opinion Survey of Tunisians*, [https://www.iri.org/sites/default/files/2018-01-10\\_tunisia\\_poll\\_presentation.pdf](https://www.iri.org/sites/default/files/2018-01-10_tunisia_poll_presentation.pdf) (2017).
88. Puri-Mirza, A. Public opinion on the most important environmental issues in Tunisia as of June 2017. *Statista* <https://www.statista.com/statistics/868399/tunisia-public-opinion-on-environmental-challenges/> (2018).
89. AFP. Tunisia eases lockdown as zero cases registered in five days. *Arab News* (2020).
90. Thewys, L. Tunisie, Liban : deux illustrations de la crise économique qui va s'aggraver pour la jeunesse de la Méditerranée. *Africa Presse Paris* (2020).
91. Webster, R., Corner, A., Clarke, J. & Capstick, S. *Communicating climate change during the Covid-19 crisis: what the evidence says*. (2020).
92. Öhman, S. Previous experiences and risk perception: The role of transference. *Journal of Education, Society and Behavioural Science* (2017).
93. McLoughlin, N., Corner, A., Clarke, J., Whitmarsh, L., Capstick, S. and Nash, N. *Mainstreaming low-carbon lifestyles*. <https://climateoutreach.org/resources/mainstreaming-low-carbon-lifestyles/> (2019).
94. Cikara, M., Bruneau, E. G. & Saxe, R. R. Us and Them: Intergroup Failures of Empathy. *Curr. Dir. Psychol. Sci.* 20, 149–153 (2011).
95. Feldman, S. & Stenner, K. Perceived threat and authoritarianism. *Polit. Psychol.* 18, 741–770 (1997).
96. Davidson, H. Global report: virus has unleashed a 'tsunami of hate' across world, says UN chief. *The Guardian* (2020).
97. Carothers, T. & O'Donohue, A. Polarization and the Pandemic. *Carnegie Endowment for International Peace* <https://carnegieendowment.org/2020/04/28/polarization-and-pandemic-pub-81638> (2020).
98. Van Bavel, J. J. et al. Using social and behavioural science to support COVID-19 pandemic response. *Nat Hum Behav* (2020) doi:10.1038/s41562-020-0884-z.
99. Webster, R. A. S. *Broadening engagement with Just Transition* – Climate Outreach. <https://climateoutreach.org/resources/broadening-engagement-with-just-transition/> (2019).
100. YouGov. *International Climate Change Survey*, <https://yougov.co.uk/topics/science/articles-reports/2019/09/15/international-poll-most-expect-feel-impact-climate> (2019).
101. Corner, A. *Hidden Heat Communicating climate change in Uganda: Challenges and Opportunities*, [http://psych.cf.ac.uk/understandingrisk/docs/hidden\\_heat.pdf](http://psych.cf.ac.uk/understandingrisk/docs/hidden_heat.pdf) (2011).
102. Klafft, M. and Schreiber, P. Risk and crisis communication in Colombia: a case study from Medellín. in Nicholson School of Communication (2018). doi:10.30658/icrcc.2018.3.
103. Corner, A., Markowitz, E. and Pidgeon, N. Public engagement with climate change: the role of human values. *Wiley Interdisciplinary Reviews: Climate Change* 5, 411–422 (2014).
104. Maio, G.R. *The Psychology of Human Values* (2016). doi:10.4324/9781315622545



