

Building bridges and changing minds: Insights from climate communication research and practice

Introduction

The Paris Agreement is widely seen as a turning point for climate policy. Despite its flaws, it lays out an ambitious agenda for reducing carbon emissions, adapting to unavoidable climate change impacts, and transforming the world's economies to continue to build prosperity and human well-being while more sustainably managing natural resources.

The European Union has positioned itself to be a leader in this transformation. Yet translating the vision into action will require strong political momentum, combined with strong public engagement and support. Effective climate communication is crucial to building that momentum and on-the-ground engagement. This brief examines what science and practical experience are teaching us about effective communication, focusing on three key objectives: 1) building support for (and reducing opposition to) climate policies; 2) driving personal behaviour change to reduce their emissions and prepare for climate change; and 3) mobilizing citizens to push for more ambitious climate action by governments or businesses.

To a great extent, the principles of good communication are universal, but climate communication poses special challenges. It involves huge and complex issues, raises fundamental questions about our economy and our lifestyle, and seeks to engage individuals to tackle a problem that can only be solved through collective action. All of this makes it much more difficult than public health campaigns, for example, where the desired behaviour change will bring immediate, direct benefits to individuals.

This brief considers mitigation and adaptation together, as we believe they are closely intertwined, but we also recognize important distinctions, which we note where they arise. The aim of this brief is to synthesize the “state of the art” on climate communication, particularly as relevant for European policy actors, and to highlight important questions and challenges that warrant further exploration.

The central role of climate communication

Climate change is one of the greatest challenges of our time. As the Intergovernmental Panel on Climate Change notes, the warming trend is “unequivocal”, and it threatens to cause “severe, pervasive and irreversible impacts for people and ecosystems” (IPCC 2014). To contain the risk, we need both “substantial and sustained reductions in greenhouse gas emissions” and adaptation.

For more than two decades, scientists, activists and policy-makers have made substantial efforts to raise awareness of climate risks and of the actions needed to address them, and they have made a real impact. A survey of 40 countries found majorities in all of these countries considered climate change at least a “somewhat serious” problem, and a median of 54% called it a “very serious” problem (Stokes et al. 2015). In the



A giant “message in a bottle” placed on a Cancún beach for the UN Climate Change Conference in 2010, part of an Oxfam campaign to boost climate finance.

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EU, the latest major survey found 91% of respondents saw climate change as a “serious” problem, with 69% calling it “very serious” (European Commission 2015). A robust 92% backed policies to improve energy efficiency (92%), and 91% supported increasing the use of renewable energy by 2030.






























At the same time, public concern about climate change has stagnated or even declined in many countries in recent years (Capstick et al. 2015), including in Europe. Sluggish economic development and terrorism have become the biggest public concerns. Moreover, climate change is increasingly seen as a political rather than a scientific issue, which has led to growing scepticism and polarization, particularly in the US and the UK.

The Paris Agreement’s goal to keep global warming “well below” 2°C, and preferably below 1.5°C, raises the bar for climate communication. Achieving this goal will require far more ambitious action than the EU or other governments have pledged so far. To make a real impact, communication campaigns will need to go well beyond informing the public, to actually mobilize citizens and drive large-scale behaviour change. This requires understanding what motivates people to act.

Changing minds – and actions

Most climate communication campaigns focus on individuals, aiming to raise their awareness of climate issues and solutions, build support for climate policies, and take personal action (Moser 2010). Other campaigns aim to foster collective action (Johnson 2012), encouraging individuals to come together around common values and goals; a prominent example is 350.org, the global climate mobilization campaign started by the journalist Bill McKibben, which combines community-based actions with global advocacy campaigns. The most ambitious efforts involve sustained, long-term commitments geared to changing social norms, to drive behaviour change (so meat-free meals become commonplace, for example) or to support major policy initiatives and regulation (such as banning cars from city centres).

Table 1: How serious a problem do Europeans think climate change is at the moment? Eurobarometer survey responses

		Total 'A very serious problem' (7-10) 2015-2013		Total 'A fairly serious problem' (5-6) 2015-2013		Total 'Not a serious problem' (1-4) 2015-2013		Don't know	Average	2015-2013
EU28		69	=	22	▲1	8	▼1	1	7.3	=
RO		74	▲11	19	▼4	4	▼6	3	7.9	▲0.7
BG		80	▲13	12	▼11	5	▼2	3	8.2	▲0.7
UK		53	▲8	30	▼4	15	▼4	2	6.5	▲0.4
FI		65	▲9	26	▼1	9	▼7	0	7.0	▲0.4
IE		59	▲6	29	▼2	10	▼4	2	6.8	▲0.3
DK		64	▲4	27	▼2	9	▼2	0	7.0	▲0.2
FR		69	▲5	25	▼2	6	▼2	0	7.3	▲0.2
CY		76	▲5	17	▼4	6	▼2	1	7.8	▲0.2
EL		87	▲2	10	▼2	3	=	0	8.2	▲0.2
EE		34	▼3	36	▲1	25	▼1	5	5.7	▲0.1
NL		58	=	31	▲2	10	▼2	1	6.6	▲0.1
LU		69	▲3	21	▼4	9	▲1	1	7.3	▲0.1
LT		62	=	25	▼1	12	▲2	1	7.0	=
BE		68	▼2	24	▲2	7	▼1	1	7.2	=
SE		71	▼1	22	▲2	6	▼2	1	7.3	=
PT		78	▲1	17	▲1	4	▼2	1	7.8	=
HR		69	▲1	21	▼3	9	▲1	1	7.3	▼0.1
MT		70	▲1	24	=	5	▼1	1	7.4	▼0.1
DE		72	=	19	▲1	8	▼1	1	7.5	▼0.1
ES		79	▼3	16	▲3	4	=	1	7.8	▼0.1
LV		37	▼5	39	▲3	21	▲1	3	5.8	▼0.2
PL		56	▼7	30	▲9	12	▼2	2	6.8	▼0.2
CZ		61	▼6	25	▲2	12	▲3	2	7.0	▼0.3
SI		66	▼7	25	▲6	8	▲1	1	7.4	▼0.3
HU		73	▼7	21	▲8	6	=	0	7.7	▼0.3
IT		81	▼4	14	▲2	4	▲1	1	7.9	▼0.3
AT		69	▼8	21	▲6	9	▲2	1	7.3	▼0.6
SK		68	▼12	22	▲7	9	▲4	1	7.3	▼0.6

Adapted from European Commission (2015), QA2

A key insight from recent research is that social norms and personal values, emotions and experiences play a much greater role in shaping perceptions of climate change than knowledge about climate science and potential responses to climate change (Marx et al. 2007; Moser 2010). This contradicts the longstanding view that the main barrier to climate action is an “information deficit”, to be corrected by educating the public about climate science (see, e.g., van der Linden 2015).

That does not mean information doesn't matter – it is crucial. Awareness of climate change is the first step towards climate action. Given the complexity of climate science and related policy issues, it is not surprising that as societies become more educated, awareness of climate change and perceptions of climate change as a serious threat are likely to increase (Lee et al. 2015). In the latest EU survey, 56% of respondents who had completed their full-time education at age 20 or older saw climate change as one of the most serious problems facing

the world, compared with 38% of those whose education had ended at age 15 or younger (European Commission 2015). However, research also suggests that people with high levels of scientific literacy are particularly hard to influence through climate communication, as they are skilled at dismissing information that contradicts their views (Kahan et al. 2012). As Stoknes (2014) puts it: “The higher education you have, the more you prefer to rely on your own interpretation and political worldview, rather than merely relying on thousands of anonymous climate experts' interpretations.”

Research also shows that people who have personally experienced extreme weather events and changing climatic patterns are likelier to be aware of climate change and want to do something about it (Hart et al. 2015). Not surprisingly, in Latin America, Africa and parts of Asia – areas hit by major storms, droughts and floods in recent years, with poorer and more vulnerable populations – much larger shares of respondents than in Europe or the US worry that climate change will harm them personally (Stokes et al. 2015). Research also suggests that people who believe that they have already experienced climate change are likelier to take action (Blennow et al. 2012).

Balancing fear with hope

Clearly disasters and extreme events offer prime opportunities to raise awareness of climate risks and mobilize citizens, and to overcome a long-time challenge in communicating climate change – that it is too abstract, distant and long-term to be fully grasped (see, e.g., Stoknes 2014). Activists and climate policy champions know this well, and have built many campaigns around disasters, most visibly #FastfortheClimate after Typhoon Haiyan in the Philippines.¹ In the lead-up to the UN Climate Summit in 2014, Oxfam's website listed “5 natural disasters that beg for climate action”.² “Bill McKibben's (2010) Eaarth book barrages readers with examples of past and impending disasters around the world before urging them to mobilize to save the planet.

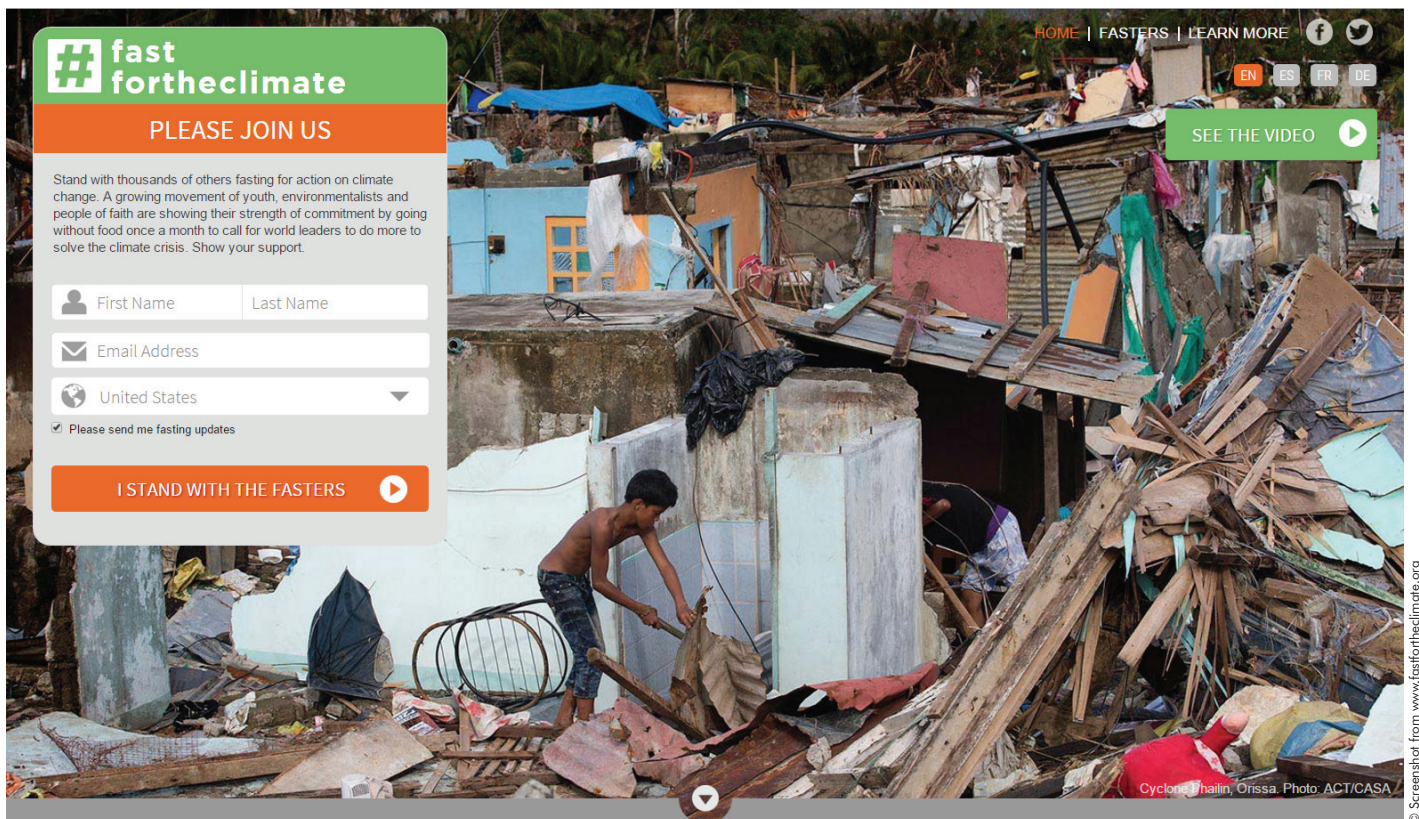
Fear is a powerful motivator, used successfully in many fields, including in science communications. In public health, for example, fear-based appeals have been shown to be effective in changing individuals' attitudes, intentions and behaviour, particularly when they emphasize the severity of the threat and the individuals' vulnerability (Tannenbaum et al. 2015). Yet fear can also be strongly demotivating, if the threat seems too great for any one person's actions to make a difference.

This effect has been well documented in the context of climate change. Messages that present catastrophic climate change as a foregone conclusion leave most people feeling helpless, vulnerable or guilty (Hobson and Niemeyer 2011). Analysis of media coverage of the IPCC's Special Report on extreme events and disasters (IPCC 2012), for example, found that seeing graphic pictures of flooding, droughts or hurricanes can lead to disengagement, defeatism and denial, rather than inspire action or evoke compassion (Nerlich and Jaspal 2014).

There are also ethical issues in using fear – and the threat of current and future disasters – to mobilize climate action. First of all, climate science is complex: some extreme events will

¹ See <http://fastfortheclimate.org>.

² See <https://www.oxfam.org/en/campaigns/5-natural-disasters-beg-climate-action>.



Typhoon Haiyan inspired the #FastfortheClimate campaign, which urges people to fast to show their commitment to climate action. The campaign website features photos from Haiyan and other disasters, such as Cyclone Phailin, shown above.

happen regardless of climate change, and scientists can say, at best, that an event was made likelier, or a storm may have been intensified, by climate change (e.g. due to warmer ocean water).³ Thus, saying that Sandy, Haiyan or any other disaster was “caused” by climate change would be unscientific. The science is also filled with uncertainty, particularly when projecting longer-term climate change impacts. Moreover, often much of the damage from extreme events is due to non-climatic factors, such as poverty or unwise development choices. Failing to acknowledge these issues could lead to ineffectual disaster responses or “maladaptation”, increasing future vulnerability (Schipper et al. 2015).

Still, the truth is climate change is frightening. How can communications efforts motivate people to act, and to support and engage in collective efforts, without triggering despair? One useful approach may be to present contrasting scenarios that highlight the difference climate action can make. For example, Climate Central’s “Mapping Choices: Surging Seas” website shows the possible consequences of 4°C warming and 2°C warming on sea-level rise, allowing users to see how iconic landmarks such as the Palace of Westminster or the Sydney Opera would be affected in each case.⁴

Adaptation research also offers useful insights. A well-known model of individual adaptation (Grothmann and Patt 2005) identifies three key factors that determine people’s engagement with adaptation: their perception of risk, their perception of the efficacy of adaptive measures, and their belief in their own abilities (“self-efficacy”). This means that messages about climate risks may be more effective if combined with information about solutions – both big-picture solutions (switching

from coal power to renewables, restoring mangroves to protect the coast) and actions that individuals can take (using energy-efficient appliances, saving water). Bushell et al. (2015) take this one step further, urging governments, businesses and civil society to jointly develop a “strategic narrative” that connects climate science with policy changes and individual efforts, showing how it all fits together and presenting a compelling vision for the future.

The importance of values and social norms

Something extraordinary happened last June: Pope Francis published an encyclical, *Laudato Si*, making a moral case for urgent action to protect the climate, the environment, and the world’s most vulnerable people.⁵ He grounded his arguments in climate science, but also in the Bible, noting a passage in Genesis that tells humans to “till and keep” the land, for example, which he interpreted to mean “caring, protecting, overseeing and preserving” the planet, in “a relationship of mutual responsibility”. He decried the injustice of the poor suffering most from climate change and environmental degradation, and urged humanity to recognize “the need for changes of lifestyle, production and consumption”.

Four months later, a survey in the US found a significant increase in concern about climate change compared with a survey in March: 59% of all respondents said they were worried, up from 51% in March, and 64% of Catholics were worried, up from 53% in March (Maibach et al. 2015). The survey also found an increase in Americans who saw climate change as a moral issue (38%, up by 6 points) and as a social fairness issue (29%, up by 8 points).

The “Francis effect” is a powerful illustration of the importance of values in shaping attitudes and behaviours around

³ See, e.g., the American Meteorological Society’s special report on extreme events in 2014 (Herring et al. 2015).

⁴ See <http://choices.climatecentral.org> and <http://www.climatecentral.org/news/global-icons-at-risk-from-sea-level-rise-pictures-19633>.

⁵ See <http://laudatosi.com>.



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Pope Francis' message on climate change has influenced US public opinion. Above, the Pope visits Philadelphia in September 2015.

climate change. Psychological research shows that individuals tend to seek information that confirms their existing views and those of the social group they wish to belong to (Kahan et al. 2011), and shape their risk perceptions accordingly (experts call this the “cultural cognition of risk”). In many countries, concern about climate change has become associated with left-leaning politics, such as support for greater regulation and reduced consumption.⁶ Opponents of climate action, with substantial corporate support (Farrell 2016), have emphasized this connection, making it part of conservatives' cultural identity to oppose climate policies (Stoknes 2014). Partisan news coverage, rapidly disseminated among like-minded people through the web and social media, reinforces that polarization.⁷

Insights into values – not just people's core principles, but more broadly, what they care or worry about most – can help communicators engage audiences that have traditionally been sceptical about or dismissive of climate action. The New Climate Economy project, for example, has focused on policy-makers and businesses whose top priority is to build a robust economy.⁸ The project has sought to debunk long-standing perceptions of climate action as economically ruinous, highlighting ways to foster growth while reducing emissions. It has also emphasized the “co-benefits” of climate action, such as improved health due to reduced air pollution, improved energy security by reducing dependency on oil imports, and new job-creation opportunities. Similarly, ICLEI – Local Governments for Sustainability has framed its climate-related efforts in terms of building more “liveable” and “vibrant” cities.⁹ Research suggests that both economic co-benefits and the chance to build a more moral and caring world can motivate private and public action regardless of personal belief in climate change (Bain et al. 2015).

6 This is a key insight to keep in mind when communicating about climate change. Reasonable people can see the same problem and come up with entirely different solutions. If concern about climate is narrowly defined as support for specific policies, and dissenters are seen as “deniers”, the battle lines will keep hardening. See the Cultural Cognition Project website: <http://www.culturalcognition.net>, as well as Randerson, J. (2013). Why a watermelon tells you what's wrong with the climate debate. The Guardian, 11 September. <http://www.theguardian.com/environment/2013/sep/11/watermelon-climate-debate>.

7 It matters what types of media people consume. Research in the US has shown those who follow scientific news feel more knowledgeable about climate change and think of it as a greater threat than those who only follow political news, regardless of whether they identify as liberals or conservatives (Hart et al. 2015).

8 See <http://www.newclimateeconomy.net>.

9 See, e.g., <http://www.wri.org/news/2015/04/release-iclei-and-wri-partner-advance-climate-smart-urban-development>.

A final point to make here is that communicators need to recognize that climate action poses real threats to some people's lifestyles and livelihoods. Sharply reducing emissions will require driving less, for example – and some will welcome the change, but others will resent it, particularly if it creates new burdens. Workers at coal mines, oil fields, and coal power plants know their jobs are on the line. This affects public attitudes towards climate policy.

In Poland, for example, where some 125,000 people still work in the coal industry, and energy security is a significant concern, protecting the coal sector was a major issue in the latest election, and Poland has pushed back against EU efforts to reduce coal use.¹⁰ Even in countries with broad public support for climate action, such as Germany, policies to curb coal use could bring hardship to entire communities. Recognizing and addressing this reality goes beyond communications – it requires planning for a “just transition” – but the tone and messages used are also crucial. Communication can build bridges, or create enemies.

Making climate knowledge accessible, relevant and actionable

Nordic research institutes have produced a substantial knowledge base on adaptation, yet that work had little impact on adaptation planning, policies and practice. As part of a multi-year regional collaboration, Klein and Juhola (2014) examined the reasons for that gap. Among the “bottlenecks” they found were mismatches between the framing of the research – the concepts and constructs developed, the physical scale, the time-frame – and the priorities and needs of stakeholders. This is an important insight for climate communications as well: if a message is to change minds and behaviours, it needs to fit the needs and priorities of the target audience. Above we discussed values, norms and fundamental needs; here we focus on more practical considerations.



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In Poland, where the economy is heavily dependent on coal, many people see climate action as a threat to their livelihoods. Above, the Turow lignite mine.

Climate communicators do not work in a vacuum: there is a huge volume of climate-related materials already – in fact, the sheer number of websites, blogs, videos, books and reports can be overwhelming. A crucial need that communicators can fill is to serve as “knowledge-brokers”, acting as filters and connecting users with the most credible and relevant information. This,

10 Employment data are from EuroStat. For coverage of the politics of coal in Poland, see, e.g., Kureth, A. (2015). Why Poland still clings to coal. POLITICO, 17 October. <http://www.politico.eu/article/why-poland-still-clings-to-coal-energy-union-security-eu-commission/>.

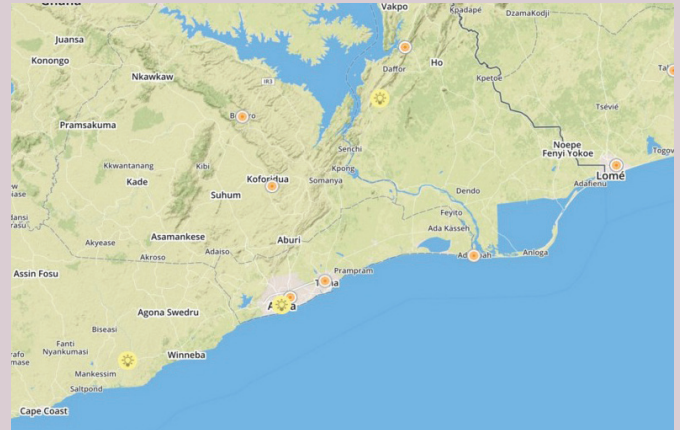
Making climate data more accessible for decision-making

Climate change has direct implications for economic development and planning: Will there be enough water to irrigate crops and power hydroelectric plants? Will there be enough snow in the Alps to support ski resorts, or do they need to rethink their business models? Will sea-level rise make certain coastal areas uninhabitable, or make beloved holiday destinations unbearably hot in the summer?

Climate data are essential to answering such questions. Decision-makers need to understand recent trends in temperatures, precipitation and sea levels, as well as projections for the future. Yet most of the information that is readily available is too large-scale – at the global, regional, or at best national level. A collaboration between SEI and the University of Cape Town aims to address that problem.

In 2011, the partners worked together to integrate weADAPT.org, SEI's adaptation knowledge platform, with UCT's Climate Information Portal, which provides local-level climate data (for each monitoring station) as well as downscaled future climate projections. By linking the two interfaces, the partners made it possible to easily access relevant climate data while viewing case studies on weADAPT, and to find relevant case studies while viewing climate data on CIP.

The objective was to enable people who do not have much training in climate science to engage with the climate data they need. To assist users, the partners developed an 8-step guidance (Taylor 2013), and applied it to a case study of land zoning and urban management in a suburb of Cape Town.



A map of Ghana on weADAPT's Adaptation Layer shows the sites of case studies as lightbulbs, and weather monitoring stations as orange dots, making it easy to cross-reference.

The guidance walks users through the process of formulating their research questions, locating relevant historical data and future projections, checking data for other nearby monitoring stations, understanding the implications of the data, and drawing lessons from other studies tackling similar issues.

The guidance, the Cape Town study and an additional example from Tanzania are all available on weADAPT as well, as online articles and in a slideshow:

<http://weadapt.org/knowledge-base/using-climate-information/guide-to-using-climate-information>.

in turn, can involve tailoring or curating materials to pick out the most useful; synthesizing information; and contextualizing and enriching the materials with local and sectoral information (Bauer and Smith 2015).

Tailoring information requires understanding users: What specific questions are they asking? Are they focused on local issues, or national or global ones? Are they looking far into the future, or just at the next few years? What skills, capabilities and resources do they have at their disposal? What is their sphere of influence? Such insights can help ensure that messages are relevant to that person, and also actionable. Imagine a town where the power supply comes from coal, for example, resulting in high greenhouse gas emissions. That information alone is unlikely to move citizens to action – but if they are encouraged to sign a petition urging the utility to buy some wind power, they might happily sign it. Practical information about ways to save electricity at home, or about installing solar panels, might prompt more ambitious actions – particularly if friends and neighbours are already doing these things.

One effective approach to understanding user needs and developing relevant and actionable information is to “co-explore” issues and “co-produce” knowledge with users, which also helps develop trust; for an example from SEI's work, see Steynor et al. (2015). Another valuable strategy is to promote peer-to-peer learning. As noted earlier, along with perceptions of risk, two key factors that have been shown to drive engagement with adaptation are the perceived efficacy of available measures, and perceived self-efficacy (Grothmann and Patt 2005). Peer-to-peer learning can bolster both these factors by connecting people with others tackling similar challenges.

SEI's online adaptation knowledge-sharing platform, weADAPT.org, has built a community of practice that allows both experts and practitioners to share experiences and insights from their work. A Google Maps-based interface lets users find others working in their region, and topic-focused pages and keywords connect projects addressing similar issues (e.g. forests, flood protection), or involving similar partners. The content is expertly curated, to ensure that it is both credible, and accessible to diverse audiences. weADAPT also encourages the submission of materials in different languages, and provides automated translations, aiming to help overcome a major gap in climate communications: a large share of the material is still only available in English.

New technologies are making it possible to tailor climate communications in new ways. Along with print and online text, we can use graphics, animations, interactive features, audio and video, packaging information to suit different audiences. These types of content can also often be shared on multiple platforms at once: a video might be embedded in a web story, posted on YouTube, and shared on Facebook, increasing the reach of the message by providing different entry points for audiences. An audio segment might be broadcast on the radio and posted as a podcast, perhaps with images or other supplemental materials. A text for a print brochure might be turned into captions for an online slideshow. Infographics and data visualizations hold particular promise for making complex, hard-to-grasp information more accessible and more compelling for audiences. For example, a recent SEI project used data visualization to map adaptation projects on weADAPT, aiming to identify patterns and gaps in topics and countries covered, and in outreach and engagement (Bharwani et al. 2015).

Reaching out to Swedish forest owners

Between 2011 and 2014, the Swedish Forest Agency conducted a large communication project called Forestry in a Changing Climate.¹¹ The objective of this campaign was to educate private forest owners and forestry professionals about the risks of climate change and appropriate adaptation measures. In total, the project engaged about 17,200 forest owners through individual consultations, courses or meetings. What made this project so interesting is that it was carried out by local employees of the forest agency and not climate scientists. Forest owners could learn about climate change from familiar faces and continue to share information and knowledge long after the project had stopped.



Effective climate communication requires listening, not just talking. Above, an SEI workshop with Swedish forest owners in November 2014, part of the Mistra-SWECIA project.

In order to assess the effectiveness of this communication project, SEI conducted a survey with 3,000 participants as well as a random sample of 3,000 forest owners in government records. Overall, the survey showed the communication effort had measurable effects on people's perception of their own ability and intention to adapt. A comparison between the two groups showed that forest owners who had participated in the capacity-building project were indeed better positioned to address climate risks. More than 37% said they felt they had enough knowledge to implement adaptation measures in their forests, and 31% also said they would soon need to take steps to adapt. In contrast, only 23% of the forest owners who had not taken part in the project said they had enough knowledge to adapt, and 20% said they would soon need to start adapting.

11 For more information, see: <http://www.skogsstyrelsen.se/Global/myndigheten/Projekt/LBP/Kort%20projektrapport%20Skogsbruk%20i%20ett%20f%C3%B6r%C3%A4ndrat%20klimat.pdf>.

Trust and relationships: the currency of communication

A striking insight from the “Francis effect” study discussed earlier is what a large share of respondents said they trusted the Pope as a source of climate information: 72% of Catholics and 62% of all respondents (Maibach et al. 2015). For comparison, an earlier survey had found 70% of Americans trusted climate scientists as a source of climate information (Leiserowitz et al. 2015).

Trust is crucial for effective climate communication – and lack of trust in the messenger (scientists, activists, politicians) has been found to be a major barrier to public engagement with climate change. Research has shown that trust has a strong mediating influence on how people

interpret the knowledge conveyed to them – how concerned they are, for example, when given specific information (Malka et al. 2009).

Many studies have also shown that people more easily trust those who share similar political views, backgrounds or life circumstances (Stoknes 2014; Kahan et al. 2011; Malka et al. 2009). For communications strategy, this means it is important to identify potential change agents and opinion leaders who are known and trusted by the target audience. They can serve as the primary messengers, or as secondary interpreters of knowledge and “champions” of change. They may also act as first adopters of a technology or behaviour, and serve as models for others.

Climate communicators can also bridge the trust gap by building relationships. That is a key benefit of the “co-exploration” approach discussed above. When first connecting with audiences that are doubtful or dismissive of climate science, communicators may find it helpful to use humour and connect on a more personal level. It is also important to ask questions and listen, and talk with people, not at them. Honesty is essential: trust can be quickly lost if audiences believe they are not getting all the facts, or the information has been skewed to be more persuasive. Communicators also need to recognize uncertainties and the limits of their own knowledge. And if the goal is to achieve substantial and lasting change, they need to be ready to invest the necessary time and effort.

Beyond individuals: Social movements and societal change

As noted earlier, most climate communication efforts today target individuals, aiming to change their personal attitudes, intentions and behaviour. Yet to the extent that these individuals are part of social groups with values and norms that run counter to those messages, the impact is likely to be reduced. A young woman whose friends love to shop, for example, will struggle to give up consumerism for the climate. Moreover, the individuals reached may not be those best positioned to act, as capabilities and resources are unevenly distributed across society. Giving up a car will be easier for residents of cities with good public transit than for suburban or rural families that depend on their cars to get to work and take the children to school.

This means that for the greatest impact, climate communication needs to go beyond individuals, and aim to mobilize collective action (Johnson 2012). That action can take many forms: from planting community gardens, to petitioning the local government, to holding protests, to working together to campaign against government policies or business practices that harm the climate. Social movements for civil rights and social welfare offer valuable examples for how to mobilize collective action and change norms and values. Importantly, social movements provide their individual members with a feeling of belonging and group identity, which increases the likelihood of success and lasting impact.

Another approach is to foster inclusive deliberations about climate-related problems and potential solutions. Although deliberations may be slower to yield results than activism, they may be perceived as less polarizing and more inclusive than social movements (Johnson 2012). Notably, neither approach needs to start from zero: often existing groups – neighbourhood associations, churches, youth groups – can be engaged by a compelling opportunity to make a difference.

Key messages

Climate communication is an evolving field. Researchers and practitioners continue to learn about the role of values, personal priorities, relationships, and conscious and unconscious processes. The political, social and economic landscape around climate action is also changing, with green technologies growing rapidly, but also new challenges competing for policy-makers' and citizens' attention. All of this means that there is no definitive way to "do climate communications right". Like climate action itself, it is an iterative process.

That said, some clear principles emerge from the discussion above:

- **Know your audience.** Climate communication is not one-size-fits-all. It is crucial to understand your audience, their values, needs and priorities, and tailor communication accordingly.
- **Set clear, realistic goals.** Know what you want to accomplish, and translate that into viable calls to action. What specifically do you want your audience to do, and can they actually do it? Do not ask for the impossible, or confront people with problems without offering potential solutions.
- **Do not try to scare people into action.** Fear is a powerful motivator, but it can also lead to paralysis and denial. Be truthful about climate risks, but avoid alarmism and hyperbole.
- **Earn and maintain trust.** Trust is essential for making an impact. Be honest, forthcoming and reliable, and recognize that trust takes time to build and nurture. Be respectful and empathetic, acknowledging that some people may suffer due to climate actions.
- **Recognize the importance of values and social norms** in shaping perceptions and behaviours. Do not expect to sway people with facts alone; explain how your message fits with their values and priorities. Be open to different perspectives as well: people may share your concerns about the climate but disagree with your preferred solutions.

- **Do not expect to "win" every time.** Climate change is far from the only challenge faced by society at any given time; sometimes other priorities will eclipse your message. Some campaigns may simply fall flat. Watch and listen to your audience, learn from successes and failures, and keep trying.

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