American Climate Attitudes
An Analysis of Public Opinion Trends and Recommendations for Advancing Public Engagement on Global Warming

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May 2011
About The Resource Innovation Group’s Social Capital Project

The Resource Innovation Group (TRIG) is a nonprofit sustainability and global climate change education, research and technical assistance organization.

TRIG’s Social Capital Project aims to increase public support and engagement in environmental and climate policies and programs. In conjunction with its growing network of practitioners from nonprofits, government, and business, the Social Capital Project develops and promotes best practices in environmental communications and behavior change through research efforts, training programs, pilot public engagement projects and by providing technical services.

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Public opinion on global warming affects everything from consumer choices and behavior to public policy. As a result, it is imperative that those working on the issue understand what Americans think about global warming, how this has changed over time, and where there are opportunities for progress.

In recent years, climate attitudes in the United States have largely taken a turn for the worse. Since 2008, well-funded opponents of taking action on climate change, in tandem with the economic downturn, have eroded previous levels of support despite many well-intentioned efforts by climate practitioners. That the existence of global warming was, and continues to be, increasingly called into question is quite unfortunate since each delay in solutions exponentially compounds current and future impacts of the problem.

In the face of a growing political divide over the existence and causes of global warming, it is critical to note that a majority of Americans do understand that it is a reality and are worried as a result. This concern, however, cannot be taken for granted. Moreover, it has not translated into compelling public engagement because most Americans do not think that global warming will affect them personally in the near future and consequently do not consider it an urgent problem.

A better understanding of climate public opinion is, thus, crucial. By taking into consideration the lessons learned about the volatility and vulnerability of public support of global warming, climate practitioners will be better equipped to fend off future attacks and make significant advances in understanding, concern and engagement.

To know where climate attitudes are headed, it is helpful to know where they have been. As such, the Social Capital Project conducted a review of more than 90 public opinion polls and journal articles related to climate communications and behavior change published from 2008 to 2010. With this analysis, The Resource Innovation Group’s (TRIG) Social Capital Project aims to provide climate leaders with a practitioner’s view of recent shifts, as well as recommendations for how to move the climate conversation forward.
METHODOLOGY

TRIG’s Social Capital Project reviewed 52 articles from scholarly journals and trade publications and 42 sources of national public opinion polling and survey data gathered from 2008 to 2010. Sources include research from groups such as the Pew Research Center, Gallup, Stanford University’s Woods Institute for the Environment, George Mason University’s Center for Climate Change Communication, and the Yale Project on Climate Change Communication. Most of the polls that were considered for the report surveyed a nationwide population of approximately 1,000 adults with a typical margin of error of ±3 - ±4.


The recommendations are influenced by the polling data as well as the authors’ experience as climate and environmental communicators.

Note that the terms “global warming” and “climate change” are used interchangeably in the report. More work is needed to test framing options such as “climate disruption.”

IN THIS REPORT

The major themes that emerged from the analysis are outlined in the following seven sections:

1. Basic Acknowledgment
   I’m not sure what to believe.

2. Issue Understanding
   Literacy versus ideology.

3. Concern
   Not me. Not now.

4. Issue Priority
   We may get to global warming after we take care of more urgent issues.

5. Categorizing the Issue
   Energy, Economy, National Security, Climate or ______?

6. Trust in Messengers
   It’s time to expand the choir.

7. Policy Solutions
   Cap and what?
1. BASIC ACKNOWLEDGMENT

I’m not sure what to believe.

Up until a few years ago, the number of Americans who acknowledge that global warming is real and a threat grew steadily year after year for at least a decade. Such basic acknowledgment of the issue, however, began to drop in 2008 and has reached the point where Americans in 2010 were less likely to believe that global warming was already occurring or would begin shortly than at any time since 1997 when the question was first posed (Gallup).

While this dramatic reversal demonstrates how quickly attitudes can change and windows of opportunities can close, it is important to note that a majority of Americans still believe that global warming is happening. This is despite an economic downturn, well-funded opposition, policy failures, as well as an inherent desire for the issue to go away.

A key challenge going forward is that a vocal part of the public is highly skeptical of the issue and largely opposed to action (Leiserowitz 2010). As a result, even if the overall number of Americans who acknowledge the reality of global warming begins to increase again, climate skeptics will likely remain a significant factor.

“National surveys have been interpreted as showing that fewer and fewer Americans believe that climate change is real, human-caused and threatening to people. But a closer look at these polls…show just the opposite: huge majorities of Americans still believe the earth has been gradually warming as the result of human activity and want the government to institute regulations to stop it. (Krosnick 2010)"
SNAPSHOT OF THE POLLS

Figure 1. Is global warming occurring?

- Do you believe that the earth is getting warmer?
  - YES (Pew):
    - 2008: 57%
    - 2009: 59%
    - 2010: 71%

- Do you think the world’s temperature may have been going up slowly over the past 100 years?
  - YES (ABC/WP):
    - 2008: 80%
    - 2009: 72%

- When will the effects of global warming begin to happen?
  - ALREADY BEGUN (Gallup):
    - 2008: 53%
    - 2009: 50%

- Do you think global warming is happening?
  - YES (Yale/GM):
    - 2008: 61%
    - 2009: 61%

TIME TRENDS

Figure 2. Belief in global warming

Do you believe that the earth is getting warmer? (Pew)
Global warming is an issue that will be with us for decades. Develop proactive communications plans with the goal of building relationships with key constituencies over time, such as youth. While there is an immediate and urgent need to act, short-term, reactive decision making can limit creativity and a sense of what is possible to achieve.

Whether one has to acknowledge that global warming is real and happening to accept action on climate is a key question that demands further study. Practitioners may want to emphasize the multiple benefits of taking action, particularly actions that have appealing outcomes regardless of whether global warming is the motivating concern.

Remember the good news – once people become aware of climate change and begin to act, they tend to want to do more. Recognize and reinforce individual and community actions to address the issue.
2. ISSUE UNDERSTANDING

- **Literacy versus ideology.**

Despite growing scientific evidence that points the finger squarely at humans, polls show that the number of Americans who believe in anthropogenic global warming has declined in recent years. What’s worse is that this number wasn’t very high before it began to fall in 2008. This is unfortunate because research indicates that individuals who believe that human activities are to blame for global warming are much more likely to support policy actions and engage in other efforts to address it (Pew 2009).

The growing gap between public and scientific understanding of global warming is not surprising. Most people do not understand the basic mechanisms of the topic and are thus unable to make the connection between greenhouse gas emissions and rising global temperatures. Research by the Yale Project on Climate Change Communication, for example, has shown that large majorities of Americans continue to confuse the ozone hole with global warming and believe that aerosol spray cans are contributing to rising temperatures.

Along with age (those under 30 are the most likely to believe that human factors are to blame) and political affiliation (Democrats are more than three times as likely as Republicans to view global warming as a man-made problem), education level is a primary factor in determining one’s opinions on the causes of global warming. While increasing climate education may work with some segments of the population, in many cases the lack of issue understanding is a function of political or religious worldviews that may not be easily altered with more facts. For example, research by Stanford University has shown that increased understanding of the issue will lead to higher levels of concern among many Democrats and Independents, but not among most Republicans.

“There is broad-based belief among the public that global warming is a reality, that it constitutes a serious threat and that a supermajority want the U.S. to reduce its emissions of gases that cause global warming. However, there is still considerable confusion about the causes and effects of global warming. (Pew 2008)”
SNAPSHOT OF THE POLLS

Figure 4. Is global warming caused by human activities?

Assuming global warming is happening, do you think it is caused mostly by human activities, natural changes in the environment, neither or both?
HUMAN ACTIVITIES (Yale/GM)

Do you believe increases in the earth’s temperature over the last century are due more to effects of pollution from human activities or natural changes in the environment?
HUMAN ACTIVITIES (Gallup)

Do you believe that the earth is getting warmer?
YES: MOSTLY BECAUSE OF HUMAN ACTIVITY (Pew)

Global warming is a proven fact and is mostly caused by emissions from cars and industrial facilities such as power plants and factories.
AGREE (CNN)

TIME TRENDS

Figure 5. Human activities or natural patterns?

Do you believe that the earth is getting warmer? (Pew)
If yes, then it’s mostly because of human activity such as burning fossil fuels.
If yes, then it’s mostly because of natural patterns in the earth’s environment.
3. CONCERN

**Not me. Not now.**

2010 marked the first time that there were more Americans, according to Gallup, who worry “not at all” about global warming than those who worry “a great deal” about the issue. This is despite the fact that a solid majority of Americans (though this has decreased somewhat in recent years) consider global warming to be a serious or very serious issue. But recognizing the seriousness of an issue is not the same thing as worrying about it and a major challenge for climate practitioners is that fewer and fewer Americans think that global warming will affect them personally.

This is problematic because according to cognitive and behavioral science, people are more likely to respond to immediate personal threats (CRED 2009). Instead, the issue is perceived as a problem primarily for plants and animals (such as the ubiquitous polar bear on the shrinking iceberg) and when Americans do make the connection between global warming and human impacts, they usually consider it to be more of a problem for impoverished populations in developing countries. It hasn’t helped that in 2010, Americans were more likely than at any point in more than a decade to believe that the seriousness of global warming has been exaggerated.

> Because global warming occurs slowly, because it is often discussed abstractly and statistically, and because people perceive it as something that will happen far off in the future and in distant lands...for many people, global warming simply fails to evoke a visceral, emotional reaction. (Zax 2010)
SNAPSHOT OF THE POLLS

Figure 6. Is global warming a serious problem?

<table>
<thead>
<tr>
<th>Question</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
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<tbody>
<tr>
<td>Is global warming a very serious problem, somewhat serious, not too</td>
<td>73%</td>
<td></td>
<td></td>
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<tr>
<td>serious, or not a problem?</td>
<td></td>
<td>65%</td>
<td>63%</td>
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<tr>
<td>Very + Somewhat Serious (Pew)</td>
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<td></td>
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<tr>
<td>How serious of a problem do you think global warming is right now?</td>
<td></td>
<td>84%</td>
<td>82%</td>
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<tr>
<td>Very + Somewhat Serious (ABC/WP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much do you personally worry about global warming?</td>
<td></td>
<td>66%</td>
<td>60%</td>
</tr>
<tr>
<td>Great Deal/Fair Amount (Gallup)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>How worried are you about global warming?</td>
<td></td>
<td>63%</td>
<td></td>
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<tr>
<td>Very + Somewhat Worried (Yale/GM)</td>
<td></td>
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</table>

Figure 7. How worried are Americans?

How much do you personally worry about global warming? (Gallup)

Great Deal
Not At All

0%  5%  10%  15%  20%  25%  30%  35%  40%  45%
Concern

- Point to tangible examples of climate impacts and how they influence human and community well-being. To avoid overwhelming people with doomsday projections, balance these impacts with opportunities to address them and highlight the benefits of taking action, such as living one’s values.

- Focus on solutions to global warming and energy challenges that are already or soon to be underway. Using language such as “a clean energy future” can make problem solving and the development of new technologies seem distant.

- Make it personal. While effective in stirring the emotions of those with environmental interests and sympathies, iconic images of polar bears affected by global warming don’t necessarily help people connect the issue to their own lives. If the polar bear or another species is the best or necessary lead, tie it back to how ice caps melting and sea levels rising impact human well-being.

4. ISSUE PRIORITY

- We may get to global warming after we take care of more urgent issues.

Global warming has never been a top national priority for most Americans. And now it is even less so. In fact, it tends to rank at the very bottom of the list of public policy priorities. In 2010, only about a quarter of Americans thought that global warming should be a top priority. Moreover, the gap between the top priorities – strengthening the economy, improving the job situation and defending against terrorism – has widened in recent years. This is despite attempts by climate leaders to tie global warming to the top issues of the day.

Global warming lacks a sense of relevancy for many Americans who do not see how this gradual and hard-to-see process is connected to their daily lives. Consequently, most Americans favor dealing with more immediate issues over taking action on global warming. This is understandable given not only the recent economic downturn, but also that researchers point out that all of us are limited in terms of the number of issues we can be concerned about. This “finite pool of worry” (CRED 2009) makes it critical to link global warming to people’s existing priorities.
When asked the traditional ‘Most Important Problem’ question, respondents rarely mentioned global warming or the environment, but when other respondents were asked to identify the most serious problem that will face the world in the future if nothing is done to stop it, global warming and the environment were the most frequently mentioned problems. (Yeager 2010)

SNAPSHOT OF THE POLLS

Figure 8. Is global warming a top priority?

<table>
<thead>
<tr>
<th>Should dealing with global warming be a top priority, important but lower priority, not too important, or should it not be done?</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP PRIORITY (Pew)</td>
<td>35%</td>
<td>30%</td>
<td>28%</td>
</tr>
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</table>

TIME TRENDS

Figure 9. What are the most important problems facing America?

| What would you say is the one most important problem you would like to see Barack Obama and Congress deal with next year? (ABC/WP) (Top four responses are included below, plus the response to global warming.) |
|---|---|---|---|---|---|
| ECONOMY | 55% | | | | |
| WAR IN IRAQ | 6% | | | 9% | |
| JOBS/UNEMPLOYMENT | 8% | | 13% | | |
| HEALTH CARE | 6% | | | 24% | |
| TERRORISM/HOMELAND SECURITY | 2% | | 5% | | |
| GLOBAL WARMING | 1% | | | | |

*Global warming received less than 1% of responses in 2008.
Because national priorities shift over time, it is wise to determine how to weave global warming into a number of policy conversations while considering how those choices influence long-term global warming communication and outreach objectives.

Carefully consider how to use news coverage of events, such as extreme storms, as opportunities to increase issue priority. These “teachable moments” are best leveraged through the use of strong narratives or stories that help people see the connection between current events, global warming, and their ability to make a difference. However, avoid exaggerating the significance of any one event as proof of global warming, versus offering an illustration of the type of trends we are seeing due to shifts in the climate.
5. CATEGORIZING THE ISSUE

- Energy, Economy, National Security, Climate, or ______?

Over the past few years, climate communicators have increasingly tried to tie global warming to issues that the public cares more about, such as the economy, energy, and national security. In some cases, mentioning the term global warming is avoided at all costs.

While it is important to start conversations based on audience preferences, the need to build the public’s basic understanding of the causes of global warming cannot be completely ignored either. Because many Americans are still confused (a 2009 Public Agenda survey found that 52% of the public believed that “by reducing smog the U.S. has come a long way in addressing global warming”), the task of promoting support for relevant policy and technical solutions remains extremely challenging.

The public’s reactions to the Gulf Oil Spill helps illustrate the need to continue connecting the dots between climate change causes and solutions. Following the oil spill, public support for offshore oil drilling declined and interest in regulation increased. But it did not become a wake-up call about the country’s addiction to fossil fuels. Four months after the spill, a Financial Times/Harris poll found that although two-thirds of Americans had become more concerned about oil dependency, they were not any more concerned about climate change. Moreover, within six months of the disaster, support for expanding offshore drilling started to rebound, although it remained significantly lower than what it was before the spill.

“Without at least a few key facts – such as how much oil the United States really has, what energy sources actually cause global warming and how long it takes to implement alternative energy plans – the public can’t make sound judgments on what should be done. (Public Agenda 2009)

Framing global warming as an economic issue has had some success with building support for the idea that a clean energy economy will create jobs and reduce global warming, particularly among women, Latinos, African Americans and the highly educated. At the same time, however, the economic downturn has added tension to the jobs versus the environment debate. For the first time since the question was initially asked in 1984, a 2009 Gallup poll found that a majority of Americans (51 percent) said that economic growth should be prioritized over environmental protection. In 2010, public opinion reverted to a slight majority of Americans again prioritizing the environment over economic growth (see Figure 16 on page 22).
Employing a national security frame may have advantages but more work needs to be done to determine how best to do this. For example, a 2009 Benenson Strategy Group poll found that 63 percent of the public was very concerned about the effect of foreign oil on national security and blamed politicians and oil companies for this dependence. However, interest in reducing the import of foreign oil for national security reasons does not necessarily lead to increased concern for climate change, because support for reducing foreign oil dependence can drive some segments of the public toward unsustainable domestic resource extraction.

SNAPSHOT OF THE POLLS

Figure 11. Support for offshore drilling

Do you support or oppose offshore drilling in the oceans?
SUPPORT (DBR)

Would you favor or oppose the government allowing more offshore oil and gas drilling in U.S. waters?
FAVOR (Pew)

How much do you support or oppose expanding offshore drilling for oil and natural gas off the U.S. coast?
STRONGLY + SOMEWHAT SUPPORT (Yale/GM)

TIME TRENDS

Figure 12. Do Americans favor domestic offshore drilling?

Would you favor or oppose the government allowing more offshore oil and gas drilling in U.S. waters? (Pew)
Categorizing the Issue

- With jobs at the forefront of Americans’ minds, constant effort needs to be directed at countering the notion that economic growth and environmental protection are at odds. Don’t rely on terms such as green or sustainable to describe job opportunities. Provide details about the types of jobs that have already been created and others to come and find a range of spokespersons who can best deliver a positive jobs message, such as business leaders, representatives from economic development boards, or mayors.

- When discussing economic development and job creation opportunities, communicators should not limit themselves to a cost-benefit analysis frame. For example, tie the benefit of cost savings from energy conservation or efficiency efforts to the co-benefit of taking responsibility for future generations.

- Be mindful of the downsides to framing choices. For example, emphasizing the fact that global warming could increase national security threats, such as mass migration from climate-impacted countries might resonate with some audiences, but it comes with the downside of promoting anti-immigration attitudes and the desire to fortify America to keep out climate refugees.

- Keep your eyes open for emerging frames linking climate to public health, as well as to justice and equity issues.
6. TRUST IN MESSENGERS

- It’s time to expand the choir.

It should not come as a surprise that attempts in 2009 to discredit the record on climate science occurred during the United Nations Climate talks in Copenhagen. In the months following what the media termed “Climategate,” public opinion polls revealed that while trust in scientists on climate issues remained largely intact, the debate became increasingly polarized. (Political conservatives showed marked decreases in trust in climate scientists, yet at the same time, trust grew among a subset of liberal Americans).

Most significantly, while scientists may still be a trusted source of information on climate issues for the most part, the public is now less sure than at any time in more than a decade as to whether scientists agree on the issue. Americans’ perception of scientific consensus has been undermined by some media portrayals of global warming as a controversial and unresolved issue and by the way climate skeptics have exploited the public’s misunderstanding of the scientific process and the concept of scientific uncertainty.

As trusted information sources, scientists can play an important role in helping to improve public understanding of the causes, consequences, and potential solutions to climate change, and help lay the foundations for informed decision making for years to come. Scientists still have strong credibility with most of the public, although there does appear to be growing distrust of scientists by conservatives and individualists, at least regarding climate change. (Yale/George Mason 2010)

People who aren’t inclined to pay close attention to an issue will learn about it from media outlets that reinforce their own social, political, or religious views. This and other types of ‘mental shortcuts,’ make it possible for individuals to draw quick conclusions about complex topics that fit their own preconceptions. Given these trends, communication experts are calling for fundamental changes in how scientists interact with the media because debates over climate change, health, energy, and technology are simply too important to lose to misinformation. (Schmidt 2009)

Some good news is that research indicates that spokespersons in addition to scientists could play beneficial roles communicating with the public about climate, such as television weather reporters and religious leaders. (Yale/George Mason 2010)
SNAPSHOT OF THE POLLS

Figure 13. Do scientists think global warming is occurring?

Which comes closer to your view: most scientists think global warming is happening, is not happening, there is a lot of disagreement among scientists?

- MOST SCIENTISTS THINK GLOBAL WARMING IS HAPPENING (Yale/GM)
  - 47% in 2008
  - 34% in 2010

Do you think most scientists believe that GW is occurring, not occurring or are unsure?

- IS OCCURRING (Gallup)
  - 65% in 2008
  - 52% in 2010

TIME TRENDS

Figure 14. Trusted messengers

How much do you trust the following as a source of information about global warming? (Yale/George Mason)

- Mainstream news media
  - 47% in Nov 2008
  - 36% in Jan 2010
  - 45% in Jun 2010

- Religious leaders
  - 48% in Nov 2008
  - 45% in Jan 2010
  - 42% in Jun 2010

- TV weather reporters
  - 66% in Nov 2008
  - 56% in Jan 2010
  - 61% in Jun 2010

- Scientists
  - 82% in Nov 2008
  - 74% in Jan 2010
  - 81% in Jun 2010
7. POLICY SOLUTIONS

Cap and what?

Consistent with the decline in belief and concern about global warming, fewer Americans in 2010 were in favor of climate-related policy solutions compared with the past few years. Despite this weakening support, investments in clean energy sources and limits on greenhouse gas emissions are still popular policies with a majority of Americans, regardless of their views on global warming. This includes tax rebates for efficient cars and vehicle fuel efficiency standards (while support is down, it is still favored by three-fourths of Americans). In addition, a majority of Americans in 2010 thought that oil and coal companies have too much influence on Congress and believed that corporations have a significant responsibility for reducing global warming.

Despite the fact that very few Americans say they have heard a lot about cap and trade (only 17 percent in 2010 according to Pew), the issue did manage to be a polarizing one for those who were politically engaged. While proponents of cap and trade were attempting to communicate the details of the market mechanism, the opposition successfully positioned it as a “big government” plan that would result in job loss. It is not surprising the opposition was successful given that even Americans who are concerned about global warming were skeptical of relying on market forces to deliver measurable carbon emission reductions.

“A majority of Americans say that it doesn’t matter if global warming is occurring or not, that it is still in America’s best interest to develop new sources of energy that are clean, reliable, efficient and safe. (Luntz 2010)”
Whether cap and trade is popular or not with those who follow politics is really only part of the problem. The larger issue is that most Americans are not interested in engaging politically as a way to address global warming, even when the issue is a priority for them.

Instead, Americans are more likely to take action as consumers. For example, a majority of Americans in 2010 said that they were ready to make lifestyle changes to reduce global warming, even if often the primary motivation for saving energy is saving money (Leiserowitz 2010). Unfortunately, it is difficult for most people to navigate the many green consumer choices and grasp how purchasing decisions can solve such a complex global problem.

"To the extent people can’t solve a problem, they tend to ignore that problem. The public is not given credibility for its inherent competence. Most Americans are, in fact, worried about climate change, but don’t know what to do about it. (Zax 2010)"

### SNAPSHOTS OF THE POLLS

**Figure 15. Consumer and political engagement.**

- Over the past 12 months, how many times have you rewarded companies that are taking steps to reduce global warming by buying their products? NEVER (Yale/GM) 47% 51%
- Over the past 12 months, how many times have you written letters, emailed, or phoned government officials to urge them to take action to reduce global warming? NEVER (Yale/GM) 89% 84%
- Do you favor or oppose setting limits on carbon dioxide emissions and making companies pay for their emissions, even if it may mean higher energy prices? FAVOR (Pew) 50% 52%
- The U.S. should reduce its greenhouse gas emissions regardless of what other countries do. AGREE (Yale/GM) 67% 65%
- Do you believe that new environmental and energy laws designed to reduce global warming will hurt or help the economy? DEFINITELY + PROBABLY HELP (Gallup) 36% 30%

[2008 2009 2010]
Figure 16. Environmental v. economic growth

Should the Environment or Economic Growth be Given Priority?
(USA Today/Gallup)

- Environment
- Economic growth
Policy Solutions

• The public’s low sense of efficacy around global warming must be addressed – both in terms of our society’s ability to address the issue, as well the role individuals can play. Clearly communicating the benefits of policy and behavior change solutions is also critical.

• Instead of providing a laundry list of activities that can overwhelm even the most engaged citizen, provide constituents with the one or a very small number of actions that will have the largest economic, political and cultural impact while reducing emissions. Feedback mechanisms are critical, especially when they show the resulting collective impact of individual actions.

• Consider using the concept of engagement ladders to involve target audiences over time. Deliberately move people from small activities that reduce emissions to larger steps that tie into the political process. Provide rewards, recognition, and opportunities to connect with others as incentives to move people to higher levels of engagement.

• Keep in mind that, often, individual actions are not enough. For example, the desire to drive less might be there but if there are no viable public or alternative transit systems in place, it is very hard to act. Tying individual choices and decisions to larger political and systemic change is critical.
CONCLUSION

With the economy foremost in people’s minds, it is essential that practitioners make global warming urgent and personal for Americans. This may mean leading with issues of greater concern, such as job creation or health and well-being. Yet, communicators may ultimately need to underscore the connections with global warming, while simultaneously providing clear evidence of the issue’s “solvability.” An increased understanding of this relationship will help the public discern the most effective solutions.

Global warming will be here for generations; consequently, climate leaders need to focus on long-term solutions and the cultivation of new audiences to proactively set the terms of the debate and avoid being consumed by short-term battles. It is important to remember that significant progress has been made in introducing some key concepts and frames to the public and efforts should not be dropped. One example, even if refinement is needed, is tying global warming to economic opportunity. There are other important cases to be made in support of taking action, such as living in keeping with one’s core values.

More research is needed to explore how to communicate with the public about projected impacts and how to prepare for or adapt to those impacts. Climate adaptation planning efforts are underway and the topic is receiving media attention, yet little public opinion or academic research has been done to date on the topic. Whether or not talking about climate adaptation has a positive or negative spillover effect on mitigation remains a key question to be investigated.
25

WORK CITED


Budescu, David V. et al. “Improving Communication of Uncertainty in the Reports of the Intergovernmental Panel on Climate Change” University of Illinois at Urbana-Champaign Association for Psychological Science. 2009.


Dizikes, Peter. “The seldom-seen devastation of climate change: A NASA climatologist explains why global warming is more than starving polar bears, and skeptics are simplistic” June 1, 2009.


Financial Times/Harris Poll. “Concern Varies on Environmental Issues in the U.S., Great Britain, France, Italy, Spain, and Germany Since the Gulf of Mexico Oil Spill” August 12, 2010.


American Climate Attitudes


Goldenberg, S. “Most Americans Don’t Believe Humans Responsible For Climate Change, Study Finds” July 9, 2009.


Jackman, S. “Australians, Americans and Climate Change” United States Studies Centre at the University of Sydney. 2009.


Joyce, C. “Belief in Climate Change Hinges on World View” 2010.


Leiserowitz, A. and Akerlof K. “Race, Ethnicity and Public Responses to Climate Change” Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change. 2010.

Leiserowitz, A., Maibach, E. Roser-Renouf, C. “Climate Change in the American Mind: Americans’ Climate Change Beliefs, Attitudes, Policy Preferences and Actions.” Yale Project on Climate Change and George Mason University Center for Climate Change Communication. March 2009.


Public Policy Polling. “Support for Energy Bill in Homes Sales of Key GOP Senators” May 18, 2010


We Campaign. “Pulse Check Research Findings” 2008.


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</tbody>
</table>

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