

Making Progress on Climate Change in Challenging Times

**Findings and Recommendations Based on Interviews with
65 National, Regional and Local Leaders**

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Background, Purpose and Methods

In late summer of 2010 after it became clear that a climate bill would not be forthcoming from Congress I decided to ask knowledgeable individuals from various sectors for their thoughts on how to make progress on climate change in the future. The initial goal was entirely internal: to focus my organization's work on top priorities. As the interview process began, however, some of the people I interviewed said they were interested in answers to the same questions I was asking. I therefore agreed to expand the number and scope of the interviews and produce a report that could be distributed to people nationwide concerned about climate change.

This document is a qualitative analysis of the key themes discerned from interviews with 65 people. The individuals represent climate, environmental and energy advocacy, policy analysis, faith, labor, national security, business, finance, and climate justice organizations working at local, state, regional and national levels. Climate scientists and Congressional and Administration staff members were also interviewed (see the Appendix for more information about who was interviewed).

I asked five basic questions and used an "unstructured" interview method. I took this approach in part because the information I gathered was initially to be used only within my organization and a more formal process was not needed. In addition, I wanted to garner unique perspectives and distinctive proposals as much as areas of consensus, and felt that an informal conversational approach would be better than a highly structured method in eliciting those comments.

I synthesized the responses of the 65 interviews into key themes that are noted with squares. Below the theme, noted by arrows, are some of the comments that led me to formulate the theme. The key themes are written in my own words, based on my interpretation of multiple comments. At times I include quotes from respondents to capture the essence of the issue in their words.

When possible I listed the number of people who gave almost identical responses to a question. Generally, however, no more than 10-15 people said the exact same thing. More often, the words and phrases used by a respondent did not precisely match those of others, yet I sensed they were expressing a similar view or theme. I made every attempt to interpret and group comments that seem similar in a fair way.

Before beginning the interviews I made it clear that no names or organizational affiliations would be used in this report. I hoped this would allow people to speak candidly.

The five questions asked during the interviews were:

1. What are the greatest achievements and greatest failings so far in dealing with

climate change in the U.S.?

2. What are the greatest obstacles to further progress on climate change?
3. What should the top priorities be to make progress on climate change in the next 1-2 years & 3-5 years and what strategies do you suggest to achieve the priorities?
4. Should preparing for and adapting to climate change now become a high priority?
5. What type of new information, tools or models are needed to make progress on the priorities you listed in question #3?

I requested 20 minutes of time to interview each person. Most interviews, however, lasted 30 to 45 minutes and over a third continued for more than an hour. All told about 47 hours were directly invested in interviews.

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Executive Summary

Question I: What Are The Greatest Achievements and Greatest Failings So Far In Addressing Climate Change?

A. Successes:

Many respondents said that if success meant actual emission reductions it was difficult hard to identify many tangible successes. At the same time many people said it is important to note the progress that has been made.

On the policy front respondents said state and local emission reduction laws led by California's AB 32, which was copied by 8 states, and its climate action plan, which was adopted in part or whole by 33 states are major successes. The NE state's RGGI cap and trade program, and the fact that over 100 municipalities have adopted climate action plans were seen as major successes. California's tailpipe emissions standards that 14 states copied and the Obama Administration turned into new CAFÉ standards was described by one respondent as 'the most important greenhouse gas reduction policy ever.'

Major advances have been made in energy efficiency and renewable policies and more money than ever being invested in clean energy.

In addition, compared to 10 years ago climate change is 'on the table' with many people across America and the number of constituencies engaged in the issue is growing. Despite a major disinformation campaign, almost 80% of American's still believe that EPA should regulate CO2 as a pollutant.

Remarkable advancements have also been made in the biophysical sciences where there is now almost complete confidence that the Earth is warming beyond the normal range of variability and that human activities are the primary cause.

B. Failures:

Many respondents said the list of failures was 'too long to describe' and that while important, the successes have been mostly tactical and may not provide a sufficient platform for the major 'transformation' that is required.

The biggest failure according to a majority of respondents has been the inability to educate the public about climate change, connect it to their daily lives, generate a sense of urgency, and make it a priority. One respondent summarized this problem by stating, "All other failures stem from this one" according to many respondents.

Lack of public understanding contributed to the failure to generate a broad-based movement demanding action on climate change. Leadership contributed to the problem by running from the issue rather than openly talking about it. This was exacerbated by an enormous failure to communicate effectively about the issue. Advocates also failed to respond effectively to the fossil fuel industry and far right anti-science and climate opponents and allowed a major disinformation campaign to essentially go unchallenged. Finally, the advances in the biophysical sciences have not been matched by similar progress in the social sciences.

Question II. What Are The Major Obstacles To Meaningful Progress on Climate Change?

Many respondents said the failures they listed also describe the future obstacles. However, a number of additional obstacles were offered including today's intense political polarization that will make it difficult to educate the public about climate change and likely make significant legislation impossible for at least 2 years. Many respondents also felt that the legislative branch of the federal government is dysfunctional and national leadership may not be up to the task of dealing with climate change. Closely connected to this obstacle is the dysfunctional condition of federal and state electoral systems that will make progress even more difficult.

The merger of fossil fuel industry money with right wing media and the Tea Party could pose a serious obstacle to progress, according to many respondents.

Almost all respondents said that continued economic struggles will exacerbate each of the other obstacles.

Question III. What Should The Key Priorities and Strategies Be In The Next 1-2 and 3-5 Years to Make Progress On Climate Change?

There was near unanimous agreement that the top priority now must be to "go back to fundamentals" and launch a nationwide climate education and engagement initiative so that in 3-5 years the public is ready to demand change. "Everything else is complementary to this," said one respondent. Significant improvements in climate communications and much better messaging discipline must be part of this effort. Leaders at all level of society must openly address the issue rather than running from it. Respondents were split on whether the initiative should be embedded within the organization of a social movement, a larger political coalition, or both.

An equally important priority according to respondents is to defend EPA's authority to implement the Clean Air Act and to defend and utilize other existing laws.

Another priority is the development a compelling vision along with clear examples of how a successful transition to a clean energy economy would look and function, as well as benchmarks to define success.

Respondents said it is essential to aggressively challenge the fossil fuel industry and expose its links to far right media and groups. More and expanded economic analysis on a variety of topics should be a key element of this strategy.

Stronger partnerships must be formed between the faith, environmental, and science communities. The capacity of youth, as well as social, environmental, and climate justice organizations to engage in climate protection and adaptation must also be significantly upgraded.

Finally, a coherent national strategy to compete with China and other nations in the rapidly growing clean energy market, as well as strategies to help states and communities hard hit by the shift away from fossil fuels should be priorities.

Question IV. Should Preparing & Adapting to Climate Change Now Become a High Priority?

The response was almost unanimously yes, although the level and reasons for the support varied.

Question V: What Type of New Tools, Information or Models Are Needed to Support the Priorities?

The most important need mentioned by respondents was simple tools and methods to educate and engage different segments of the public in climate issues. More, better, and unified communications framing and messaging research as well as training tools and opportunities were also highlighted. Training opportunities in behavioral and social change theory and practice for advocates was listed as a need as was more resources invested in a variety of social science research topics.

Other needs include easily accessible examples of best practices in climate communications, behavioral change, action planning, and other topics, and more efficient and faster ways of exchanging information within the environmental and climate communities.

Synthesis and Recommendations

A synthesis of the interviews suggests a three-part framework is now needed: *Build* a powerful broad-based movement demanding action on climate change; *Challenge* efforts to create doubt about the science, intimidate people, or block reasonable programs and policies, and; *Defend* existing emission reduction laws and the most vulnerable in society.

Based on the interviews, my personal recommendations include: 1) Generate and widely communicate new social narratives; 2) Initiate conversations in every community and social network nationwide about how people want their future to look, and 3) Put opponents on the defensive by forcing them to respond to the new social narratives and positive visions. Leaders willing to openly talk about the dire threat of climate change and challenge opponents will be essential to this approach.

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(Note: Although I have tried to highlight responses that garnered significant support, the issues and recommendations that follow are not necessarily listed in order of importance).

Question I: What Are the Greatest Achievements and Greatest Failings So Far in Addressing Climate Change?

A. *Successes:*

Many respondents said that if success meant actual emission reductions it was difficult hard to identify many tangible successes. At the same time many people said it is important to note the progress that has been made.

- Important advances have been made in state and local emission policies with the leader being California's AB 32 that was copied by 8 states, and its climate action plan that was copied in whole or in part by 33 states.
- Over 100 municipalities have adopted climate action plans.
- The Northeast RGGI cap and trade program has been operating for two years without raising energy prices while generating revenues for states.
- Passing Waxman-Markey out of the House signaled progress.
- More money than ever is being invested in clean energy technologies.
- California's tailpipe emission standards that 14 states copied and the Obama Administration turned into new CAFÉ standards are a major step forward.
- Compared to 10 years ago climate change is 'on the table' within many constituencies across America.
 - Most members of the public, and almost all senior officials within government, businesses, and civil society have heard about climate change and many think something might be happening, even if they are skeptical or uncertain about how serious the problem is, or what or when action should be taken.
 - Climate change is now a common topic in the media—even if much of the coverage is poor or aimed at discrediting the science (e.g. Fox News)
 - Increasing number of denominations and leaders within the faith community are taking climate change seriously

- An increasing number of businesses are taking their carbon footprint seriously (even if not many are acting on the information they have).
 - A number of youth and climate justice organizations have formed focused on climate change.
 - Despite a sophisticated disinformation campaign the majority of the public still supports action on climate change and 80% believe CO₂ should be regulated by EPA as a pollutant.
- Remarkable advancements have been made in the biophysical sciences.
 - Most of the scientists that were interviewed and a number of other respondents said there is now almost complete confidence that the Earth is warming beyond the normal range of variability & that human activities are the primary cause.

B. Failures:

Many respondents said the list was ‘too long to describe’ and that while important, the successes have been mostly tactical and may not provide a sufficient platform for the major ‘transformation’ that is required.

- The biggest failure according to a majority of respondents has been the inability to educate the public about climate change, connect it to their daily lives, generate a sense of urgency, and make it a priority. One respondent summarized this problem by stating, “All other failures stem from this one.”
 - About a third of the respondents said scientists are not necessarily the best people to explain climate science to the public because their descriptions are too complicated, e.g. a faith community leader said, “Scientists cannot deliver a simple explanation to save their souls.”
 - Five respondents said the focus on ‘climate science education’ might have backfired because it emphasizes the greenhouse effect and its impacts (e.g. “We haven’t really gotten beyond the impact aspect of education” said a climate education leader). This has caused many people to deny, ignore, or question the science because they are frightened or think the problem is unsolvable.
 - A little less than a third of the respondents, including people from the environmental community, said that environmental organizations are not necessarily the best group to educate the public because they run the risk of sounding like they are merely pushing an agenda.
 - In one form or another about 20 respondents said some segments of the public have lost faith in large institutions—leaving the UN and the IPCC, NOAA, and even the National Academy of Science with little credibility.
 - Almost every respondent said that concern about the economy and jobs and other issues make it very difficult for people to want to spend time learning about or acting on climate change.

- Closely linked with the failure to educate is an enormous failure to communicate effectively about climate change.
 - “The wrong messengers delivering the wrong messages,” was how a respondent from a national policy analysis organization summarized the general view of about three quarters of the respondents.
 - President Obama and leaders at all level of society have ducked the issue rather than openly talking about the urgency of the climate crises.
 - About a third of the respondents said communications is rarely framed to speak to specific demographic groups, lacks a values base, and fails to combine a sense of urgency with messages of opportunity and hope.
 - “Messaging discipline has been abysmal,” said a respondent with expertise in communications, leaving the public confused by the different messages from different organizations.
 - About a third of respondents from both national and local groups said the messaging shift away from the risks of climate change to green jobs, national security, and energy independence undermined the sense of urgency. One respondent said, “We don’t know how to talk about risks, urgency and solutions and instead are using secondary messaging about jobs and clean energy. We need to go back to the core message.”
 - Respondents from social and climate justice and some youth organizations said communications failed to emphasis the moral justice aspects of the crisis and thus failed to resonate with their constituencies.
 - Five people said that a number of climate communications guides have been produced but they do not seem to agree on common frames or messages. Many groups that have received the guides failed to use them. The guides that provided demographically specific framing and messaging recommendations were most helpful according to a number of people.

- Closely linked to the failure to educate and communicate is the failure to make clear links between climate change and other pressing issues.
 - About half of the respondents said climate advocates have failed to link climate change to the everyday issues people deal with such as job losses, personal health, and local pollution. A climate justice advocate offered the observation that, “Obesity is an environmental justice issue and there are many other public health issues that are connected to climate justice. Many more people could be involved if we made these connections.”
 - Five respondents from state and local groups said the climate movement has failed to understand and tap into the anger that exists among the American public over the economic collapse and other institutional failures (starting as far back as Enron, and more recently Wall Street, the Gulf oil spill, and others). “There is something powerful happening out there we are missing,” said one person.

- About fifteen respondents said in one form or another that meaningful progress on climate change is not likely until other macro issues affecting people are addressed. Examples offered include the Wall Street's predatory activities, debt-based economics, corporate America's short-term focus, growing income and wealth disparities, and the growth of corporate power.
- The focus on federal policy has diverted attention and resources away from growing popular demand for action on climate change.
 - A respondent from a national environmental organization summarized this failure by stating, "We went policy first and public engagement second and this was completely backwards." A respondent from the federal government said, "We tried to do really big stuff but we did not help the public understand what it was about and the public did not get the problem, need, or solutions." A faith community leader said, "The biggest mistake was focusing on the federal government. We should have focused on the people in their communities and started a real movement."
 - At least fifteen respondents said in one form or another that too much money flowed to national environmental groups in the past few years leaving them without sufficient resources to educate and organize their constituencies.
 - Almost every respondent from environmental and climate justice organizations said the climate movement has failed to diversify and deepen its base by engaging women's groups, people of color, indigenous groups, seniors, and youth. Issues of race and power need to be openly addressed to develop a broader coalition.
- A disinformation campaign was allowed to take hold and go essentially unchallenged.
 - About three quarters of respondents said it was a grave mistake to claim 'the science was settled' and then refuse to respond to the lies and distortions of climate deniers. One respondent said, "We ignored them rather than directly refuting them but the other side does not play by the rules or tell the truth and they won."
- The advances in the biophysical sciences have not been matched by similar progress in the social sciences.
 - Many respondents said that little money has been invested in the social science aspects of climate science. (One person who works for the federal government said, "No agency has funded the social science application. All the money keeps going to biophysical science even though there is not much more to gain there.")

QUESTION II. What Are The Major Obstacles To Meaningful Progress on Climate Change?

Many respondents said the failures they listed also describe the future obstacles. However, a number of additional obstacles were stated:

- Intense polarization will make educating the public difficult and likely make significant legislation impossible for at least two years.
 - About half of the respondents said that polarizing over the science of climate change would make it difficult to educate and engage the public.
 - Continued political polarization will add to the polarization over climate science.
 - A number of Hill staffers said the issue no longer has political saliency—“Enough people understand the problem but they don’t care and won’t take political risks” said one staffer.

- The Republican Party has made opposition to the science and action on global warming a litmus test for election.
 - Many people said that if the mid-term elections go as feared and right wing anti-science and climate legislators take over at least one wing of Congress and many Governor seats progress on climate change might ground to a halt.
 - If Tea Party candidates dominate this election, the next Republican Presidential candidate is likely to walk the same line, making progress even more difficult.
 - On the plus side, a number of Hill staffers said that if the balance between Ds and Rs in Congress evens out it is conceivable that progress might be possible, at least on energy issues, because both party’s will realize that they must work with the other side to pass legislation.

- The legislative branch of the federal government is dysfunctional and national leadership may not be up to the task.
 - About one third of respondents questioned whether the Obama Administration and Congress have the type of leadership needed to “turn modest support into a victory” to use a quote from a Big Green group member. A respondent involved with national security issues echoed this view stating, “It does not appear that our nation’s leaders are up to taking on the grand challenges of today.”

- Closely connected to the previous obstacle, the dysfunctional condition of federal and state electoral systems will make future progress difficult.
 - Almost half of the respondents mentioned issues such as campaign financing, the Congressional primary system that drives candidates to the extremes, and the redistricting process as issues that need to be resolved in order to make progress in the coming years.
 - The Supreme Court Citizen's United decision was listed by about half of the respondents as a major obstacle due to its influence on elections.

- The merger of fossil fuel industries with right wing media and the Tea Party poses a serious obstacle to progress on climate and many other issues.
 - Over half of the respondents said the fossil fuel industry won the last round and are likely to accelerate their efforts to create doubt about the science of climate change, intimidate those who speak out, and kill any significant federal or state legislation in the future.
 - Five respondents involved with grass roots groups said they are seeing a merger between corporate funding and right wing groups such as the Tea Party in their community. One person said, "These people seek to destroy the entire progressive movement, not just climate legislation." Another said, "Isn't this what happened in Germany before WWII where corporations found a common issue that allowed them to merge interests with right wing extremists?"

- Limited financial resources will constrain all effort to address climate change.
 - Three respondents said the window of opportunity for federal agencies to invest in internal climate programs and to distribute funds to external sources through grants and contracts is rapidly closing.
 - Many respondents from state and local organizations said funding is difficult to come by and it will be difficult to engage in climate work when they are cutting budgets and staff.

- Scientists are concerned about the loss of high quality data sources.
 - Two scientists said that valuable stream and weather gauges, which were established for reasons other than to generate climate data, might be lost due to budget cuts.

- Continued economic struggles will exacerbate each of the other obstacles.
 - The majority of respondents said that significant progress on climate change is not likely until the economy improves.

QUESTION III. Given the Obstacles What Should the Key Priorities and Strategies Be for the Next 1-2 and 3-5 years to Make Progress on Climate Change?

- There was near unanimous agreement that the top priority now must be to “go back to fundamentals” and launch a nationwide climate education and engagement initiative so that “in 3-5 years the public is ready to demand change.” “Everything else is complementary to this,” said one respondent.
 - Most of the respondents said an initiative to educate and engage Americans must explain the scientific causes and risks of climate change in simple terms. Equally important must be a focus on the known solutions and their benefits such as for personal health and the economy. (Side Bar: in behavioral change lexicon people make fundamental changes when there is sufficient: a) ‘Tension’ about a problem; b) ‘efficacy’ that the tools and capacity exist to solve the problem and reduce the tension, and; c) confidence that the ‘benefits’ of making a change outweigh the downsides by at least a 2 to 1 ration).
 - Many respondents said the initiative must be organized so that appropriate messengers deliver appropriate messages to the right constituencies (e.g. business leaders must talk with other business leaders using business frames, farmers with farmers using appropriate frames, Evangelical leaders with Evangelicals using faith messages).
 - About a quarter of respondents said conversations should be held community-by-community nationwide that discuss how other local concerns can be addressed while also addressing climate mitigation and adaptation. (Note: a number of people said that local preparedness and adaptation projects might help achieve these goals—see Question IV).
 - About a quarter of the respondents said the focus of this initiative should be the 10% of American’s that are the most influential in their communities, industry, profession, or social group (e.g. hunters, Rotary), not the ‘general public.’ One person called this the “30 million people campaign” meaning that it should target the 10% of the nation’s 300 million people that are the most influential. Another person said to focus on the potential ‘champions’ in different constituencies.
 - One respondent suggested targeting educational efforts at the children of fossil fuel executives, as well as the kids of elected officials and corporate executives, because kids often have the most influence on their parents.
 - Two people suggested that a major emphasis should be placed on developing “Intermediaries” that can translate climate science into simple terms for different demographic groups. These would not be scientists but people who are good public speakers, likable and trustworthy.
 - Five respondents said the educational effort “must tell the public the truth” meaning that GHG emissions are not the problem per se but

merely a symptom of larger problems related to rising population, consumption, and high-energy use technologies.

- Closely linked with the first priority is the need to significantly improve and unify communications and to provide tools and training for communicators.
 - At least half of the respondents said that compelling communications frames and messages are desperately needed. “No one knows how to talk about this issue,” said one person. Bringing all of the climate communications researchers together to develop agreement on frames and messaging should be a priority.
 - Vastly improved messaging discipline should also be a priority, according to three respondents from the communications field.
 - About one third of the respondents said messaging must be targeted to different demographic groups. Justice, for example, should be a key element of the frame for members of the faith community, youth, and people of color. A ‘jobs vs. jobs’ frame (coal jobs versus the jobs of many other sectors) might effectively contrast with the ‘environment vs. jobs’ and ‘environment vs. taxes’ frame now used by opponents.
 - About a quarter of respondents said they need training and ongoing support to deliver appropriate climate communications.
 - Ten respondents said a ‘rapid response’ capability must be developed to quickly respond to lies and distortions of opponents and to use daily events as “teachable moments.”
 - Fifteen respondents suggested in one form or another that a priority should be better use of online and social media along with web-based micro targeting that businesses use to identify and profile consumers.

- An equally urgent priority should be to defend EPA’s authority to implement the Clean Air Act as well as other existing energy and climate laws and programs.
 - About three quarters of the respondents—and almost every person from an environmental organization--said it was essential to defend EPA’s authority to regulate CO2 and other pollutants.
 - Many of these respondents said EPA authority should be used to shut down the 10-20% of the oldest most polluting coal-fired power plants.
 - About half of these respondents also mentioned the need to strongly defend AB 32, RGGI, state RPS policies and other achievements

- Build a deep, wide and powerful social movement demanding action on climate change.
 - At least half of the respondents said that the political coalition approach was tried and failed and now a social movement must be organized that will support action on climate change over the long term.

- According to these respondents a social movement must be values and relationship based with the moral justice aspects of climate change being the key organizing principle (i.e. the use of fossil fuels must come to be seen as morally wrong) along with a focus on the selfish behavior of fossil fuel companies that is placing all else at grave risk.
 - An effective social movement would need to 'build a big tent' and make climate change "everybody's issue" (to quote the title of a publication by the same name). Women's groups, people of color, indigenous groups, low-income groups, the faith community, seniors, youth groups etc. would need to be meaningfully engaged.
 - Meaningful engagement requires jointly determining goals, strategies, and policies that cross sectors and interests rather than merely trying to get new constituencies to support an agenda chosen by environmental groups.
 - Engagement would need to be locally based and focus on hands-on projects that motivate people to stay engaged and accomplish more.
 - A successful social movement will also require strategically investing resources in constituencies that currently have low capacity such as social and climate justice groups and youth organizations.
- Alternatively, build a larger political coalition.
 - About half of the respondents were not convinced of the viability of creating a social movement because climate change does not easily lend itself to this approach. A better focus, they said, is to build a wider and deeper political coalition, or to possibly try to build a social movement around targeted political action.
 - Unlike the civil rights movement a clear and present moral injustice caused by an obvious enemy is absent with climate change. The problem (CO₂) is invisible, the effects believed to be mostly in the future and in far off places, and to some degree the problem is all of us. Others added that climate change is too urgent to wait 5-10 years for a powerful social movement to form.
 - Proponents of a larger political coalition said that targeted federal, state and local policy initiatives should become the focus with the goal of advancing policies that benefit many constituencies and garner widespread support. Land use, transportation, and energy efficiency standards and incentives were mentioned as possible focuses. Small successes would help rebuild the confidence of the movement and help build a cohesive national political coalition.
 - Respondents acknowledged that the downside of this approach is that until the economy improves it is likely to be difficult to focus the public on policy issues unrelated to jobs. In addition, efficiency and similar policy proposals might not be 'sexy' enough to motivate many to become politically engaged.

- No matter what approach is taken, a focused effort must be made to identify and develop leaders.
 - About a quarter of the respondents from groups as diverse as youth to national environmental organizations said that leadership development at all levels of society will be a key to long-term success. One respondent captured this need by stating, “There are not enough climate leaders and organizers out there.”

- No matter what approach is taken, a compelling vision and examples of success, transition strategies, and clear benchmarks are needed.
 - Almost half of the respondents said that a compelling vision is needed of how a low carbon economy would look and function. According to these people the public does not have a clear sense of what a low carbon economy means, what would become of their jobs, how their lifestyles would change, and what the opportunities will be for their children in this new world. The public also can’t see how the nation transitions from the current high carbon to a low carbon economy given that so much is dependent on fossil fuels. Without a compelling vision and tangible transition strategy it will be difficult to motivate change.
 - Clear examples of success are needed to bring the vision to life and show people the type and quality of jobs that are available in clean energy and the new economy.
 - Five respondents said it will be important to clearly define what success means for climate advocates over the next few years. If a national carbon tax or cap on emissions are not possible, how will progress be measured, e.g. by the number of new people that understand climate change, the number of local policies adopted, or other benchmarks?

- Aggressively challenge the fossil fuel industry and expose their links with far right media and far-right groups.
 - About a third of the respondents said aggressive action must be taken to challenge the fossil fuel industry and expose its links with the far wing media (e.g. Fox News) and groups such as the Tea Party.
 - Ten people mentioned the need to significantly upgrade efforts to intentionally expose how fossil fuel corporations is using its money to undermining local, state, and federal elections and policies.
 - Another strategy mentioned was to organize grass roots campaigns across the nation to shut down coal-fired power plants. Public demonstrations should be combined with legal and political pressure on state utility commissions and utilities to disinvest in coal plants.
 - Ten respondents said strategic efforts should be made to reduce or end subsidies to the fossil fuel industry.

- Build a platform to allow moderate Republicans and conservatives to engage in climate issues.
 - At least twenty respondents said that concerted effort must be made to work with key segments of the Republican coalition that do not support the anti-science and anti-climate extremist agenda. One person said, “Right now they are all looked the same, but they have different goals. We need to provide a way for moderates to engage.”
 - Faith community leaders, business executives responding to rising energy and insurance costs and pressure from consumers, conservatives concerned about national security, and other groups were mentioned as possible allies.

- Increase the faith community’s capacity to address climate change.
 - About a quarter of the respondents voiced support for helping the faith community increase its engagement on climate issues. One respondent said, “The greatest hope lies in the faith community.” Another said, “We can’t achieve sustainability without religious leadership.”
 - An Evangelical said that Evangelicals represent 48% of the Tea Party and they tend to be very conservative. Focused efforts should be made to engage Evangelical leaders in discussions with more progressive Evangelical leaders to build support for action on climate and other issues from an Evangelical perspective.

- Launch a long-term program to identify common values and build stronger partnerships between the faith, environmental, & science communities.
 - Related to the previous recommendation, two respondents from the faith community said that barriers exist to partnering with the environmental community, including disdain among some scientists and environmentalists for people of faith. One person said, “They want us to support their agenda, but they don’t even want to talk with me when we are together in a room.”
 - One respondent suggested that a sustained process should be initiated to identify and highlight the values and goals that the science, faith, and environmental communities have in common. This would be similar to the sustained effort that has been made to find common ground between labor and the environmental community (and it would be different from the goals of the National Religious Partnership for the Environment). If successful, this could lead to a much more politically powerful movement than the labor-environmental partnership due to the size and political influence of the faith community.

- Build the capacity of youth organizations to engage in climate activities.
 - A number of respondents said young people are the ones that will be most affected by climate change and special efforts should be made to educate them about the issue and teach them how to cut their emissions and cope with the problem.
 - Respondents from youth organizations said that young people are very concerned about climate change and could become a major force if they were provided with sufficient resources, educational tools, and engagement opportunities appropriate for their age and demographic group. Leadership development should be a top priority.

- Build the capacity of organizations focused on social, environmental, and climate justice to engage in climate activities.
 - Respondents from these organizations said they need greater capacities because climate change disproportionately affects their constituents.

- Invest significant resources in reforming the electoral process.
 - Over half of the respondents said that it was unlikely meaningful progress could be made on climate change without first addressing larger issues shaping the nation's politics. These respondents said that significant investments should be made in campaign finance reform (one person from the faith community said, "Obama's top priority after the elections should be to get on the road and push for election finance reform in every state of the nation."). Another focus should be to find ways to constrain the ability of corporations and private donors to anonymously fund campaigns. One respondent said that efforts to restructure the primary system, as well as the Congressional redistricting process are essential.

- Prepare for possible rapid major market shifts away from fossil fuels.
 - During an interview a respondent from a large corporation mentioned a financial study produced by an individual who runs an Australian Blog called The Cockatoo Chronicles. It concluded that within five years investors are likely to begin to disinvest in assets that are heavily exposed to fossil fuels because they will realize that the financial risks associated with such investments are too high. If this occurs a major economic upheaval is likely, yet no plans have been made to handle this type of major market shift.
 - When I shared the study with a few respondents, two said that climate advocates and financial analysts should make every effort to inform the business community and investors about this possible change so they can begin to prepare.

- Develop a national clean energy economic competitiveness strategy
 - Three respondents said that China and other nations are rapidly outpacing the U.S. in their capacity to design and manufacture clean energy technologies and that the U.S. does not have a strategy to compete. These respondents said that a coherent national economic competitiveness strategy must be developed that outlines how the U.S. will capitalize on its competitive advantages and compete with China and other nations in the rapidly growing clean energy technology markets.

- Significantly upgrade economic analysis of climate issues.
 - About a quarter of the respondents said that more economic analysis is needed on a variety of topics.
 - Topics mentioned include: The costs of climate impacts at the 'granular' local level; The costs and benefits of preparing and adapting to climate change (and the extent to which mitigation can reduce those costs); The costs of building clean energy infrastructure in different regions (one respondent said the U.S. has 7 distinct energy systems, not a single system as is commonly thought); A comparison of the number of jobs that might be lost in coal states due to limits on emissions compared to those lost in other states due to the continued reliance on fossil fuels; The economic costs of failing to compete with China and other nations in the rapidly growing clean energy market.

- Develop strategies to assist regions and communities hard hit by the shift away from fossil fuels.
 - About a quarter of the respondents said that strategies are needed to ease the transition in regions and communities that will lose jobs in the shift away from fossil fuels (e.g. coal states and communities dependent on off shore drilling). The strategies may include new investments, worker retraining, job compensation, and other elements. In the absence of such strategies opposition to carbon taxes or caps will remain fierce.

QUESTION IV. Should Preparing and Adapting to Climate Change Become a Higher Priority?

- The response was almost unanimously yes, although the level and reasons for support varied.
 - Most respondents from the environmental and climate justice community, as well as some scientists and a few others said that climate impacts are now certain and society has a moral responsibility to help the most vulnerable people and communities prepare for and adapt to them.
 - Two respondents involved with biodiversity conservation said natural system adaptation must become a top priority.
 - Five respondents said big investments are being made now in infrastructure due to the federal stimulus bill that will last 30-50 years and they should be planned with climate impacts taken into account.
 - About one quarter of the respondents said that engagement in place-based preparedness and adaptation projects might be a good way to educate people about climate change provided they learn about what the impacts mean for them locally, grasp the importance of reducing local emissions, and engage in projects that helps them internalize the opportunities presented by solutions.
 - About a quarter of the respondents offered a note of caution, however, that preparedness and adaptation efforts must be carefully structured so they do not give the impression that adaptation is a sufficient response to climate change or that emissions reduction can be delayed.

QUESTION V: What New Tools, Information or Models Are Needed to Support the Priorities?

- The most consistent need mentioned was new tools to educate the public. Suggestions included:
 - A series of “Climate Change for Dummies” for youth, business, faith, labor, farmers, elected officials and other groups
 - Exciting visual and online tools such as social networking tools.
 - Handbooks for professionals in a variety of fields that are already or will soon be impacted by climate change describing planning and decision making methods.
 - Training workshops for ‘intermediaries,’ ‘champions,’ and local climate leaders to help them learn how to translate climate science as well as the solutions and their benefits in simple terms for different audiences.

- A number of respondents said that credible information is needed about how people think and feel--not about climate change, but about their lives in general-- so that climate advocates can make linkages with the issues that most disturb people. One person said, “We need to know why people are so mad and how can we tap into that anger.”

- Five respondents said the climate and environmental community need training in behavioral and social change theory and practice including how to motivate people to engage in behavioral changes and how to overcome institutional and cultural barriers.

- Linked with the previous suggestion, many respondents said that more resources should be invested in social science research topics such as:
 - Models that can help predict the break points when climate-induced political instability and conflict will occur
 - Governance structures to coordinate mitigation and preparedness/adaptation efforts across multiple jurisdictions.

- A number of respondents mentioned the need for easily accessible examples of best practices: in communications; mitigation and adaptation projects etc.

- Two respondents said new tools and models are needed to assess the consequences of climate change on water resources. “We are hamstrung more by water than energy issues,” said a respondent from the Northwest.

- One respondent said the environmental community needs better and faster ways of exchanging information beyond email (i.e. the number of messages people get tend to be so overwhelming that it’s difficult to get urgent information out to key people).

SYNTHESIS AND RECOMMENDATIONS

Conducting 65 interviews over a two-month period proved to be very enlightening. Hearing the views of people involved with so many different types of organizations from a variety of locations of the county provided an exceedingly unique and rich data set of needs, perspectives, and suggestions.

It became evident through the interviews that the climate protection movement is demoralized at this time. Most respondents listed twice as many failures as they did successes in dealing with the issue.

In addition, the respondents seem unsure about future steps. Other than near unanimous support for a nationwide initiative to educate and engage the public and improve communications, and a consensus among environmental advocacy organizations that a top priority must be to defend EPA's ability to regulate CO₂, few other ideas were supported by more than a third of the respondents, and many of the comments and recommendations were mentioned by just five to ten people.

This might be a reflection of the way the questions were framed, or of the demographics of the sample. I sensed, however, something deeper at play. With federal and many state level climate protection efforts now on hold, climate advocates are hard pressed to identify a strategy that can cut emissions rapidly enough to prevent atmospheric concentrations from rising to dangerous levels.

Despite difficult times, it is important to remember that significant progress has been made. Even with the aggressive disinformation campaign, for example, surveys show that a significant percentage of the public still supports federal action to reduce emissions and 80% still believes CO₂ should be regulated. Progress is still being made at the regional, state and local levels. An increasing number of private firms are considering the risks associated with their carbon footprint. Just as the fall of the Berlin Wall seemed to come out of nowhere, surprises could also occur that open the door to rapid progress on climate change.

In order to make advances where possible in the near term, while preparing for major changes over a longer time frame, I believe a synthesis of the findings of the 65 interviews suggests a three-part approach is needed, which can be described as: *Build, Challenge, Defend*.

1. *Build* a deep and wide movement that demands aggressive action on climate change. Building this movement will require an extensive long-term effort to help people from every demographic group and every economic sector, in every part of the nation, understand the causes and risks of climate change as well as the solutions and their many benefits (that is, sufficient tension, efficacy, and benefits must be built). Building a powerful movement will also necessitate creating a compelling vision of success and making clear links between climate change and

the things people value and deal with on a daily basis. In addition, it will require vastly improved communications and new social narratives. Climate change must become 'everybody's issue' and everybody must have a meaningful say in what should be done about it.

2. *Challenge* the fossil fuel industry and its allies. Whether it takes the form of a values-based social or a policy-based political movement, building a groundswell of motivated supporters will take time. In the meantime opponents are certain to escalate their efforts to create doubt about the science of climate change, scare the public with stories of huge financial costs and job losses, intimidate those who advocate for climate programs or policies, and seek to block every policy that unduly affects their interests. These tactics cannot go unchallenged. An aggressive campaign must begin to directly confront the fossil fuel industry and their allies, including right wing ideologues, whenever they make false claims, skew the truth, or attempt to coerce or silence people.

3. *Defend* existing emission reduction policies and the most vulnerable. Laws currently on the books, including EPA's authority to regulate CO₂, state Renewable Portfolio Standards and many others must be aggressively defended. They are the only tools available to secure emission reductions. Equally urgent is the need to significantly upgrade efforts to defend the regions and communities that are most vulnerable to climate change, and the most vulnerable populations within all communities. Defensive measures must also be taken to help ecosystems and biodiversity withstand and adapt to climate change. Also important will be concerted efforts to defend climate scientists from politically motivated attacks.

Personal Assessment and Recommendations

The 'Build-Challenge-Defend' framework outlines the elements of the work before us. But it doesn't quite get at the underlying purpose of this work. Why are emissions in the U.S. so high? What is it about our economic system that leads to continual crisis? These issues must be openly discussed if meaningful solutions are to be found to the climate and many other crises our nation faces.

I come from a systems perspective and have continually thought about the comments I heard during the 65 interviews from that standpoint. From the viewpoint of systems dynamics the least powerful leverage points for change in a social system are to try to alter the parameters (policies, incentives etc) of a system. That's because if the core elements of current system remain intact, such as its controlling mental models and core purpose, altering the parameters will have little effect on decision making or behavior.

Conversely, the greatest leverage point for change in a social system is to alter the mindset which created the system in the first place or which currently supports and reinforces it. That's because social systems—which include all economic, organizational and political systems—are the external manifestation of the core

assumptions, values, and thinking patterns of the people involved. Only after a change in thinking occurs will the structures and processes that resulted from this mindset also change.

The next greatest leverage point, which is only possible to employ successfully if sufficient progress has been achieved in changing mental models, is to alter the core purpose and goals of the system.

My take on the comments heard during the interviews is that on climate change in general, and certainly on the legislative front, advocates have regularly pushed on the least powerful leverage points for change and given short shrift to the most important ones. The primary focus has been on changes in technology and policy. Efforts to alter the core assumptions and beliefs of most people about how our economy functions and the effects of personal lifestyle practices on the climate—and on other people and the environment—have been too little too late. Instead, the public has essentially been told that the purpose and structure of our economic system can remain essentially the same and that the only factor that needs to change is new forms of energy to power it.

In short, efforts to address climate change have mostly been framed as an attempt to eliminate a set of ‘bads’ (e.g. GHG emissions, terrorism threats to our oil supply, damage from climate impacts) rather than as an urgent and wonderful opportunity to generate a set of positive ‘goods’ that can provide innumerable benefits to the economy, public health, personal relationships, community-wellbeing, as well as the climate.

It is in this arena that I believe the greatest opportunities for change will be found at this time. Within each aspect of the three-part ‘Build-Challenge-Defend’ framework the primary goal should be to alter the dominant assumptions and beliefs of Americans not just about the use of fossil fuels, but also about the current structure and goals of the economy, our communities, and our personal behaviors. We cannot avoid this issue. If we are going to lose, let’s not go down without an honest and open fight about the fundamental issues. Here are my suggestions for pursuing a major change in thinking and behavior among Americans:

1. *Generate And Widely Communicate New Social Narratives.*

Due primarily to the influence of our parents, at a very early age each of us adopts a personal narrative—a story—about who we are, how the world works, and our place in it. Similarly, every society adopts parables and morality tales that define their collective identity, clarify what they stand for, and help people decide right from wrong.

The creation of social narratives seems to be a universal human trait. This is in part due to their power to help us make sense of external events. Our cultural

myths and storylines help us interpret reality. We use them to define problems and identify solutions. They consequently shape our politics and policies.

Through constant repetition our social myths and metaphors become deeply embedded and highly resistant to change. We adjust them only after a crisis that exposes gaping holes or flaws in their veracity that are simply too great to ignore.

The recent litany of economic, social, and environmental calamities—from the damage caused to Hurricane Katrina to the economic meltdown, to the Gulf oil spill-- has left many American's adrift. Their long held beliefs about the world no longer seem adequate to explain current events, credible alternative viewpoints have not emerged, and people don't know what to think or how to respond.

The right wing has sensed this need and rushed to fill the gap with narratives that blame liberals, elites, scientists, regulations and the like for the troubles. But these negative narratives don't resonate with a majority of American's. This opens the door for climate advocates to provide American's with new social narratives that not only help them make sense of the current crises, but also paint a positive image in their minds of the tremendous opportunities that await us if we modestly change our personal behavior as well as the purpose and goals of our economic system to embrace sustainability. In short, we must generate and relentlessly communicate narratives that turn today's dominant narratives on their head and make clear that addressing climate change is not about eliminating problems but about creating a new, vibrant and sustainable future that will benefit everyone.

I suggest that major investments be rapidly deployed in the development and delivery of new social narratives.

2. Initiate Conversations In Every Community and Social Network Nationwide About How People Want Their Future To Look.

One of the key lessons of systems thinking is that due to non-linear feedbacks social systems are inherently unpredictable and are not easily controlled (we found that out once again in the recent elections). Enacting a policy aimed at eliminating a 'bad' --such as GHG emissions--does not necessarily mean we will get the 'good' we want instead. History is littered with examples of well-meaning policies that produce something as bad or worse than existed in the first place. That's because a core systems axiom is that 'structure drives performance' and adjusting the parameters of a system rarely changes its core structures and feedback mechanisms.

Systems thinking offers an alternative approach, which is to envision and design the system you want. We can't usually impose our will on a system by twiddling with the parameters. We can, however, help people understand what will happen if we don't change the structure of the current system, and then design and redesign systems to meet new purpose and goals of sustainability.

'Ends-planning' describes the process of designing a system by starting with the ideal you desire and then moving backwards to current conditions and outlining a plan to achieve the ideal. This approach is commonly used in the private sector to design new products and services, and it's also a core element of the organizational change approach called Appreciative Inquiry. It can be a powerful approach at the community and professional level as well.

To meet the need described by so many respondents of educating the public about climate change through a focus on living in accordance with moral values and building community, and to help people grasp the many personal, social, and economic benefits and opportunities possible by reducing GHG emissions and preparing for climate change, I suggest that conversations be held in every community and within every social and professional network across the nation about how people want their future to look and function. Climate change should be a core element of these conversations. But greenhouse gas emissions are merely a symptom of much deeper problems. The primary focus should be to engage people from all walks of life and in all professions in designing the sustainable, healthy and vibrant communities, economies, and practices they want in the future. Strong leaders will need to be involved to pull this off---but it is essential to have an open, honest and vociferous debate community-by-community about our future.

3. Put Opponents On the Defensive By Forcing Them To Respond To The New Social Narratives And Positive Visions.

The best defense is a good offense. The interviews revealed that climate advocates are on the defensive now, mostly trying to protect what they have while searching for incremental gains. Opponents are certain to sense this and press even harder. It is essential to not allow any erosion of the goal of protecting the planet from irreversible harm. The bad behavior of opponents is certain to be magnified by the far right media. People will be told, "that's all we can do" and "you can't expect more." But we can and must expect the best in humans if we are going to solve the climate crisis—and a tremendous amount of positive activities are happening to build upon. We must stand up, be aggressive, and put opponents on the defensive.

I suggest that leaders from every segment of society aggressively shine the light on the thousands of households, organizations, communities and states that are successfully implementing new, sustainable low-carbon alternatives. Opponents must then be challenged to tell the public why more of these successes are not possible. They must be challenged in the media, within professional organizations, and within all types of social networks. Public pressure, legal challenges, and many other strategies should be employed to put the fossil fuel industry and their allies on the defensive. The new social narratives should reinforce the successes.

The future of our nation and the planet are now at stake and time is short. Individuals concerned about climate change must rally their forces, keep their heads high, take a stand and persevere through challenging times.

APPENDIX

Organizational Type or Affiliation Interviewed	Number of People
National “Big Green” Environmental Organizations	8
National Climate Coalitions and Organizations	3
National Policy ‘Think Tanks’	5
Social, Environmental, & Climate Justice Organizations	7
Youth Organizations Focused on Climate Change	3
Faith Organizations	5
Labor Organizations	2
Business and Finance	6
Climate Scientists	5
Academics Doing Research on Climate Issues	3
National Security Focused Organizations	3
Congressional Staff	4
Obama Administration	4
Pacific Northwest Organizations	7

About the Author and The Resource Innovation Group

Bob Doppelt is Executive Director of The Resource Innovation Group (TRIG), a non-partisan social science-based sustainability and global climate change education, research and technical assistance 501 (c)(3) non-profit. TRIG assists all levels of government, the private sector and community groups nationwide to understand both the risks and opportunities posed by global warming and develop, implement, and evaluate climate and sustainable development protection programs and policies. TRIG has four major programs: The Climate Leadership Initiative, The Social Capital Project, Sustainable Thinking, and Sustainable Governance.

From 2002 through late 2010 TRIG and its Climate Leadership Initiative program was affiliated with the Institute for a Sustainable Environment at the University of Oregon. Prior to that TRIG was affiliated with the Mark O. Hatfield School of Government at Portland State University.

In addition to directing TRIG, Mr. Doppelt is an adjunct faculty member in the Department of Planning, Public Policy and Management at the University of Oregon where he teaches systems thinking, sustainable development, and global warming policy. He also teaches at the Presidio Graduate School in San Francisco. His expertise is in systems dynamics and change.

Mr. Doppelt is the author *The Power of Sustainable Thinking: How to Create a Positive Future for the Climate, The Planet and Your Life* (Earthscan Publishing, 2008) which in the summer of 2010 was deemed by Audubon Magazine to be one of the eleven most important books on climate change. He is also the author of *Leading Change toward Sustainability: A Change Management Guide for Business, Government and Civil Society* (Greenleaf Publishing, 2003), which just six months after its release was deemed one of the "ten most important publications in sustainability" by a GlobeScan survey of international sustainability experts. Mr. Doppelt was the lead author of *Entering the Watershed: A New Approach to Save America's Riverine Ecosystems* (Island Press, 1993).

Mr. Doppelt is a member of the Oregon Global Warming Commission Education and Outreach Committee. He is also a regular columnist on global warming and sustainability for the Eugene Register Guard and Salem Statesman Journal newspapers and is a frequent speaker at workshops and conferences.