

RESULTS FROM CLIMATE CHANGE PUBLIC OPINION SURVEYS IN COUNTRIES AROUND THE WORLD



NOVEMBER 2017

Climate Scorecard Report #15

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Results from Climate Change Public Opinion Surveys in Countries Around the World: Climate Scorecard Country Summary Report #15

ACTION ALERT

ACTION ALERT FOR POLICY MAKERS, ENVIRONMENTAL NGOS, RESEARCH CENTERS, BUSINESS LEADERS, AND CONCERNED CITIZENS

In almost every country more work needs to be done to raise citizen awareness about the fact that climate change and global warming are caused by humans. Citizens need to do more to press their governments to increase actions that mitigate climate change, and national governments need to do more to support the Paris Agreement.

INTRODUCTION

Climate Scorecard Report #15 highlights the results of climate change public opinion surveys that have been conducted in leading greenhouse gas emitting countries over the last five years. Looking across countries we see the following trends:

- Citizens in many countries agree that climate change is caused by humans and that it is a major threat to national security and their own well-being. (Argentina, France, India, Italy, Nigeria, Russia, South Africa)
- Citizens in many countries are in favor of their nations taking stronger action to reign in greenhouse gas emitters. (Germany, Spain)
- There is strong support for the Paris Agreement in many countries. (China, Canada, the United States)
- In several countries, citizens believe that their country as well as other countries are not doing enough to combat climate change. (Brazil, India)
- Citizens beliefs in the importance of climate change is at a low level in certain countries. (China, Japan, Saudi Arabia, South Korea)

The surveys also reveal the need for increased efforts in all countries to better inform citizens about the nature of climate change and the importance of both their governments and individuals taking stronger action to mitigate the impact of global warming.

Results from Climate Change Public Opinion Surveys

Country	Survey
Argentina	Seventy-five percent of those surveyed considered global climate change to be a major threat to their country.
Australia	The number of Australians who believe in human caused climate change is almost equal to those who believe a changing climate is a natural occurrence. This brings into question how many people would support measures to address climate change that assume a human influence.
Brazil	According to Carlos Rittl, Executive Secretary of the Observatorio de Clima, "The average citizen has an excellent understanding about the causes of climate change and its impacts on their everyday life. They are dissatisfied with the low level of priority that government attributes to the issue, which they consider crucial for the country's development."
Canada	In a 2017 survey of 1,518 Canadians conducted by Abacus Data Inc. 84% of respondents said they feel the USA made the wrong decision in exiting the Paris Climate Change Accord.
China	71% of people interviewed gave their support to their government curbing greenhouse gas emissions and contributing to the Paris Agreement.
France	90% of respondents appeared to be aware of the challenges resulting from climate change, 59% of which believe that the consequences of climate change were underestimated. 76% of respondents believe these consequences were becoming critical/dangerous.
Germany	Respondents were asked whether they would support the introduction of hefty penalties to countries that were unwilling to be part of the Paris agreement and 59% agreed.
India	44 percent of Indians feel the rich countries needed to do more to curb greenhouse gas emissions.
Indonesia	Among those negative impacts of climate that respondents listed were respiratory problems and disruption to food production from the longer dry season, greater exposure to water-borne illness and increases in mosquitos carrying Dengue and Chikungunya from frequent heavy rain and flooding, and increased illness from sudden changes in weather.
Italy	Unlike the rest of Europe, right-leaning Italians are more concerned about climate change (78%) than left-leaning Italians (64%).
Japan	66% of people surveyed did not know that Japan was one of the highest GHG emitting countries in the world.

Country	Survey
Mexico	It is clear that we are still far away from having a comprehensive idea about the attitudes, perceptions and concerns of people about climate change in Mexico.
Nigeria	The findings of a survey conducted in 2015 of 379 public officials and university students in Lagos State and Akwa Ibom State, Nigeria showed that most of those surveyed (about 340 individuals) believed that human activities were a significant cause of climate change.
Russia	Almost half of the respondents see the problem of climate change as a warning to future generations. A third of the respondents think that this problem needs to be addressed now, and one out of every seven respondents believes that global warming does not pose a threat to anyone.
Saudi Arabia	The questionnaires focused on exploring the approach of the construction sector stakeholders to sustainable buildings both at the development and operational phases of projects. The findings of the survey indicate that the Saudi building industry has yet to realize the importance of sustainability.
South Africa	Climate change is viewed by South Africans as the top international threat to national security (ranking at 59%).
South Korea	Only 20% of the general public respondents answered that mitigation is important, which indicates that more efforts should be made to promote awareness of climate change to the public.
Spain	95% of the Spanish population would "impose strict controls and heavy penalties" on industries that damage the environment.
Thailand	Climate change related disaster risk reduction traits differs considerably by gender. For instance, women have a greater likelihood of collecting emergency supplies, formulating a family emergency plan and are more than likely to out-migrate from tsunami-vulnerable areas.
Turkey	92% of farmers surveyed agree that climate change is a problem all over the world; and 93% believe that the reduction of forests directly affects the climate.
United Kingdom	In Wave 1 of a tracking study in 2012, 15% registered natural process-only responses, whilst 38% registered human activity-only responses. In Wave 21, 5 years later, 10% registered natural process-only responses, whilst 42% registered human-activity only responses.
United States	On April 17, 2017, the Yale Program on Climate Change Communication published an additional study of data gathered from registered voters in the time leading up to the 2016 federal election showing that 69% of registered voters believed the U.S. should participate in the Paris Agreement.

ARGENTINA

Submitted by Climate Scorecard Country Manager
DUSTIN ROBERTSON



Seventy-five percent of those surveyed considered global climate change to be a major threat to their country.

Available survey information on climate change attitudes and opinions in Argentina points to one conclusion—Argentines care about climate change. Although rigorous studies on the subject are not abundant, by piecing together information from various sources we see a general narrative emerge. The following paragraphs will present some of the most relevant surveys from the past ten years.

2007—A study by the consulting firm Analogías surveyed 450 adults from the Buenos Aires Metropolitan Region and found that 75% of their sample believed that extreme weather events in their country were related to climate change. Furthermore, 90% said that climate change was an urgent issue that the government should address. Although the study was not conducted nationwide, it gives some indication of the concern Argentines had for the subject over a decade ago.

2015—Just before the COP21 meeting in Paris, a survey by World Wide Views Alliance called “WWViews Climate and Energy” found that 95% of Argentines surveyed were very worried about climate change. The population for this survey was also not nationally representative, but again the results showed a great concern.

2016—An online survey conducted across 23 countries by Ipsos Mori found that the vast majority of Argentines sampled claimed that climate change is largely a result of human activity. This view expressed by 88% in Argentina was second on the list of countries surveyed (only Indonesia was higher).

2017—A recent Pew Research Center survey also showed the concern Argentines have for the issue. The survey was conducted via telephone and face-to-face interviews with 1,012 Argentines. Seventy-five percent of respondents considered global climate change to be a major threat to their country. This response outranked other threats including ISIS and the condition of the global economy.

Taken together, these results show a generally high level of concern about climate change in Argentina. However, all of these surveys are targeted at general public attitudes and opinions which, while important, are only part of the story. The attitudes and opinions of other important stakeholders such as the Government and corporations in Argentina are also crucial.

Learn More

2007—<https://www.pagina12.com.ar/diario/sociedad/3-91659-2007-09-20.html>

2015–<http://www.lanacion.com.ar/1802169-preocupan-a-los-argentinos-los-efectos-que-podria-causar-el-cambio-climatico>

2016–<https://www.ipsosglobaltrends.com/climate-change-as-a-result-of-human-activity/>

2017–<http://www.pewglobal.org/2017/08/01/globally-people-point-to-isis-and-climate-change-as-leading-security-threats/>

AUSTRALIA

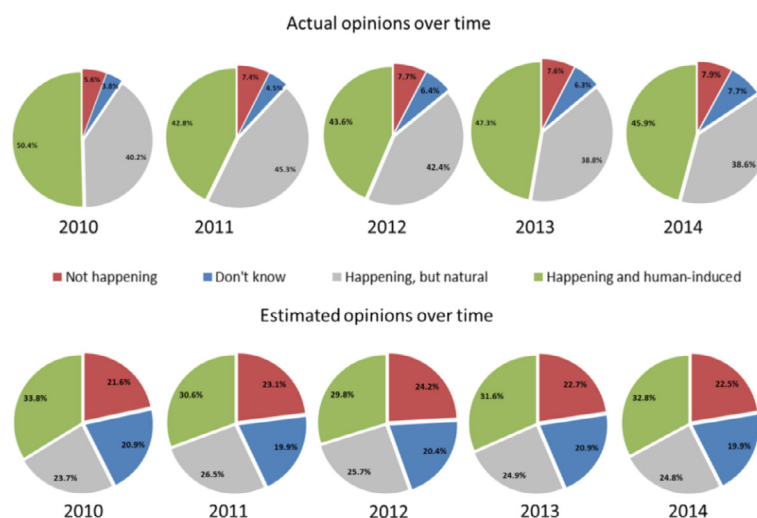
Submitted by Climate Scorecard Country Manager
HANNAH CAMPI



The number of Australians who believe in human caused climate change is almost equal to those who believe a changing climate is a natural occurrence. This brings into question how many people would support measures to address climate change that assume a human influence.

In a study conducted over the span of five years, CSIRO- an Australian research organization, examined Australian's attitudes toward climate change. The survey reached 17,500 people between 2010 and 2014 and aimed to expand understanding of Australian's views and beliefs relating to climate change.

The survey showed that an overwhelming majority–78%–of Australians believe climate change is happening when asked as a yes or no question.



The same survey shows that while significant portions of Australians believe in human caused climate change, overall Australians underestimate how many others hold this belief. The charts below show predicted versus actual belief in climate change and various climate change causes. However, when

looking at the actual data, the number of Australians who believe in human caused climate change is almost equal to those who believe a changing climate is a natural occurrence. This brings into question how many people would support measures to address climate change that assume a human influence.


In order for Australia to take action to address its emissions and contribution to climate change, people must support the idea that these actions will be beneficial to the overall effort to combat climate change. It remains to be seen if measures to reduce Australia's GHG emissions will have enough public and political support to meet their Paris commitments.

Learn More

<https://publications.csiro.au/rpr/download?pid=csiro:EP158008&dsid=DS2>

BRAZIL

Submitted by Climate Scorecard Country Manager
LAURA VALENTE DE MACEDO



According to Carlos Rittl, Executive Secretary of the Observatorio de Clima, "The average citizen has an excellent understanding about the causes of climate change and its impacts on their everyday life. They are dissatisfied with the low level of priority that government attributes to the issue, which they consider crucial for the country's development."

In March 2015, Datafolha institute, a research group based in São Paulo, undertook a public opinion survey commissioned by Greenpeace Brazil, and the Climate Observatory (Observatório do Clima – OC) to find out what Brazilians think about climate change.

They interviewed 2,100 people from across the country, between 11 and 13 March 2015. The sample includes individuals over 16 years of age, from all economic classes, in 143 municipalities ranging in size from small cities to metropolitan areas. Distribution of interviewees per region was defined according to Brazilian demographics:

- North and Centre West – 15 %, where the Amazon and Cerrado ecosystems are being threatened by deforestation and land use change for cattle ranching and agriculture.
- Northeast – 28%, where there are large areas threatened by droughts and desertification, the population is poor, the HDI, and GDP tend to be lower.
- Southeast – 43% This is the most populated and urbanized region, including states and cities with the highest GDP in the country.
- South – 15% The southern states are more developed, with higher levels of education, income and quality of life. Industries and agriculture are the main source of revenues.

According to the survey, the majority of interviewees knew about global warming and climate change (88%). Twenty-eight% declared being knowledgeable, 43% knew something, and 12% said they knew nothing about the subject. Most interviewees consider climate change to be a concern (85%), and a significant 91% regards global warming as a threat to the future of the planet.

Residents of the North and Centre West regions were better informed about the subject. Among the most educated, those who declared to be informed were 52% of the sample, and among the more affluent, 62% said they knew about climate change. Those who consider that it is already affecting Brazil reach 95% of the sample, and 90% relate the energy and water crises to climate change.

Brazilians are also aware of the drivers of climate change: in the opinion of 95% of the interviewees deforestation is the main cause. Furthermore, 93% identified fossil fuel burning as a cause. The majority (mostly over three quarters of the sample) also identified industrial activities, coal burning, agriculture and waste treatment as causes for global warming.

When asked about mitigation measures, the interviewees identified that reducing deforestation was beneficial (84%); investing in renewable energies was also considered mostly beneficial by the majority (83%); transport measures were regarded by 81%. More than half of the interviewees consider that the federal government is not doing enough to address the problem (56%), most of them from the Northeast part of the country. This is the prevailing opinion particularly among the younger and more affluent population in the region.

Most are also aware of the potential of solar energy (74% nationally), 40% would be interested in making better use of solar power, especially in the Southeast (47%). The trend increases amongst the most educated (54%) and affluent interviewees (63%). When presented with the choice for solar energy with a fiscal incentive, people were more willing to declare their interest in installing a system (71%). However, 29% declared they weren't interested at all, regardless of any incentives.

According to Carlos Rittl, Executive Secretary of the OC, "The average citizen has an excellent understanding about the causes of climate change and its impacts on their everyday life. They are dissatisfied with the low level of priority that government attributes to the issue, which they consider crucial for the country's development."

The survey results are corroborated by the Pew Center's global research published in November 2015. Brazilians were among the most concerned of people in 40 countries covered by the survey.

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In Portuguese

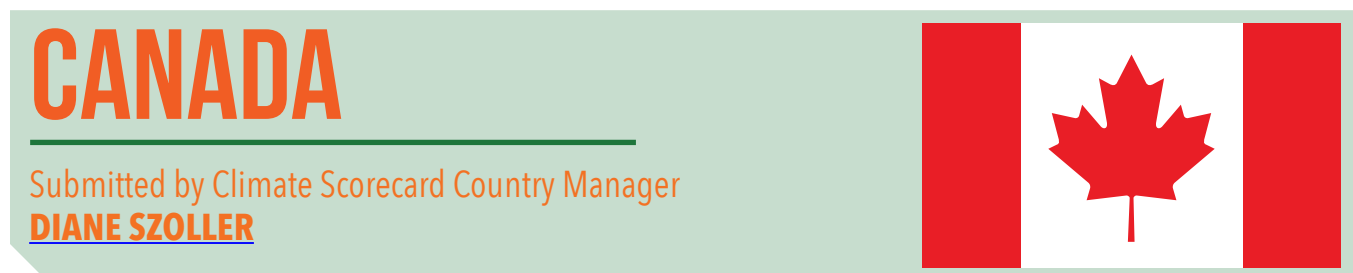
Observatório do Clima website: <http://www.observatoriodoclima.eco.br/en/brasileiro-acha-que-mudanca-do-clima-ja-afeta-o-pais-e-que-governo-faz-pouco-a-respeito/>

Report on the 2015 Survey by the research institute Datafolha, commissioned by Greenpeace and the Climate Observatory in Brazil. Available at: <https://secured-static.greenpeace.org/brasil/Global/brasil/image/2015/Maio/datafolha%20clima.pdf>

News on the Pew Center's research: <https://oglobo.globo.com/sociedade/sustentabilidade/brasil-o-pais-mais-preocupado-com-clima-diz-pesquisa-1-17974048>

In English

News on the Pew Center's website about the 2015 survey: <http://www.pewresearch.org/fact-tank/2016/04/18/what-the-world-thinks-about-climate-change-in-7-charts/>



In a 2017 survey of 1,518 Canadians conducted by Abacus Data Inc. 84% of respondents said they feel the USA made the wrong decision in exiting the Paris Climate Change Accord.

In a survey of 1,000 Canadians conducted by Nanos Research, nearly two-thirds of respondents agreed or somewhat agreed that the federal government should proceed with climate regulations, including carbon pricing, regardless of the direction taken by the USA. Support for Canada's plan to institute new climate regulations was broken down regionally as: Atlantic 70%, Quebec 73.2%, Ontario 60.7%, Prairies 51.5%, BC 74.3%.

In a 2017 survey of 1,518 Canadians conducted by Abacus Data Inc., 84% of respondents said that the USA made the wrong decision in exiting the Paris Climate Change Accord. 84% also said Canada should remain committed to the Accord. Unusually, these views crossed partisan lines. Even a majority of Canadian Conservative voters, agreed the USA decision was unwise (61%) and that Canada should stay in the Accord (62%).

The main reason why those polled supported continuing climate action, 'was to prevent environmental calamities and to do the right thing by future generations'. Increasingly, Abacus' research shows Canadians favoring a shift from non-renewable fossil fuel energy as part of a sound economic strategy for our future. By a margin of 3 to 1, the survey showed Canadians see that economies that do the best in the future will be those shifting to cleaner energy.

The USA's position on the Paris Accord appears to be helping clarify for Canadians what side of the argument they don't want to be on. Their data shows that support is broad and deep for Canada's government to press ahead with the Agreement and that the audience for political leaders who doubt climate change is happening is small (and shrinking).

Learn More

To review a listing of Abacus' most recent surveys
<http://abacusdata.ca/thoughts-findings/> July 6, 2017

<http://abacusdata.ca/canadians-paris-accord-a-good-idea-trump-wrong-to-exit/>

More detail on tabulations for Globe and Mail survey can be found at <http://www.nanosresearch.com/sites/default/files/POLNAT-S15-T729.pdf>

<https://beta.theglobeandmail.com/news/politics/two-thirds-of-canadians-approve-of-ottawas-climate-regulations-poll/article34205335> March 3, 2017

CHINA

Submitted by Climate Scorecard Country Manager
LENA COURCOL



71% of people interviewed gave their support to their government curbing greenhouse gas emissions and contributing to the Paris Agreement.

Concern about climate change among people in China—the world's biggest carbon polluter—has plummeted in the past five years, according to new research. The Chinese were the least concerned among 40 nations surveyed.

A recent US Pew Research Center report shows that only 18% of Chinese citizens are seriously concerned about the issue, a drop of 23 points since 2010. China ranked as the country where citizens were least concerned about the issue among 40 nations participating in the study.

Nevertheless, more than two-thirds of Chinese people support a global deal on reducing greenhouse gas emissions, the research states.

Bruce Stokes, the co-author of the report, said there was "frankly, no explanation" for the drop, but suggested as a possible reason that "there must not be as much public discussion about climate change in China as there are in other parts of the world".

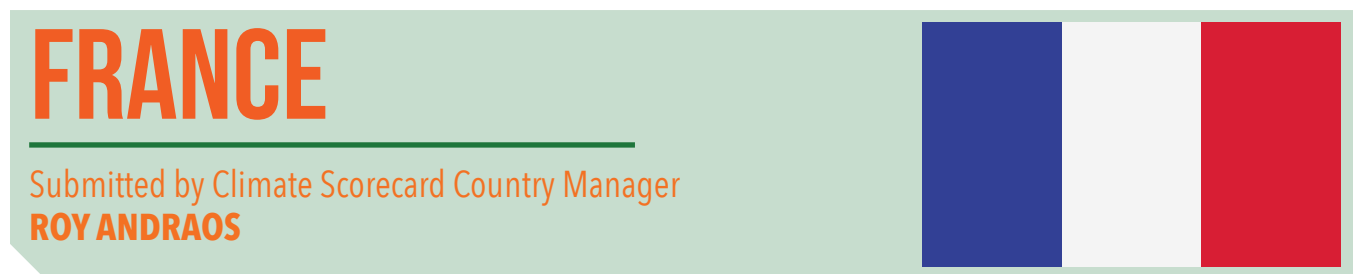
In 2010, China overtook the US to become both the biggest producer and biggest consumer of energy in the world. Its government has been applauded by some for its commitment to reduce its greenhouse gas emissions per unit of gross domestic product by 60-65% from 2005 levels and to see its emissions peak by 2030.

Despite their lack of concern about climate change, when asked which domestic issues they found most problematic, Chinese participants consistently named air pollution near the top. Air pollution is thought to cause thousands of deaths every day in the country, with coal accounting for two-thirds of China's energy consumption.

Despite the apparent absence of anxiety in China, 71% of people interviewed gave their support to their government curbing greenhouse gas emissions and contributing to the Paris Agreement.

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Climate change concern among Chinese citizens plummets, research finds, The Guardian, Emma E Howard, November 5, 2016 <https://www.theguardian.com/environment/2015/nov/05/climate-change-concerns-chinese-citizens-plummets>



90% of respondents appeared to be aware of the challenges resulting from climate change, 59% of which believe that the consequences of climate change were underestimated. 76% of respondents believe these consequences were becoming critical/dangerous.

The 2015 BVA, La Recherche and Le Monde climate survey from 29 April to 4 May, focused on a representative sample of 1,053 people in France. The survey aimed to understand French people's awareness and understanding of climate change. Ninety% of respondents appeared to be aware of the challenges resulting from climate change, 59% of which believe that the consequences of climate change were underestimated. 76% of respondents believe these consequences were becoming critical/dangerous. As for the cause of climate change, 93% of respondents believe that it is due to human activity, namely intensive farming and deforestation.

Another interesting survey to discuss is the September 2015 Odoxa–Puf survey of French youth on climate change. The survey relied on a representative sample of 1,001 people aged 15 to 30. It found that two thirds of respondents have never heard of COP21; only 13% of the remaining one third had a precise idea of what the COP21 was. Another interesting finding is that 71% of respondents were pessimistic as to the usefulness of this conference and its contribution to reducing climate change (cf. the 2°C objective). The survey also shows that young people favor the most radical solutions to climate change. For instance, 39% of respondents would like to force companies to reduce their CO2 emissions and impose sanctions on those that don't.

Surveying the perception of climate change issues among four European countries

The EPCC 2016-2017 survey conducted in four European countries, including France, offers an interesting insight into the relevance of climate change issues relative to other national issues/questions. The French part of the survey focused on interviewing 1,000 people aged 15 and over from the 9th to the 14th of June 2016. Among the key findings, were that 36% of French respondents ranked unemployment as the top priority/issue facing the country whereas only 6% ranked climate change as the top issue. Nevertheless, 41% of respondents clearly indicated that they were very or extremely worried about climate change, compared to 29% in Norway. The survey also focused on the beliefs, emotions, psychological distance and other/related social aspects.

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<http://www.larecherche.fr/climat-sondage/les-fran%C3%A7ais-ont-une-vision-d%C3%A9form%C3%A9e-du-r%C3%A9chauffement-climatique>

http://www.lepoint.fr/societe/climat-pres-de-trois-jeunes-sur-quatre-pessimistes-sur-les-chances-de-succes-de-la-cop21-29-09-2015-1968923_23.php

<https://orca.cf.ac.uk/98660/7/EPCC.pdf>

GERMANY

Submitted by Climate Scorecard Country Manager
MARY NTHAMBI



Respondents were asked whether they would support the introduction of hefty penalties to countries that were unwilling to be part of the Paris agreement and 59% agreed.

Traditionally, German citizens have a high environmental awareness. As such, climate change is a top issue of discussion in German media mainly in magazines and newspapers e.g. the mirror (Der Spiegel). A weekly face-to-face survey involving 1,001 German citizens was carried out between 6-12th June, 2016 by Joint Programme Initiative-Climate Change, in collaboration with the University of Stuttgart, Germany. It was aimed at creating baseline data that would help policy makers and researchers comprehend the attitudes of German citizens towards climate change. The understanding of attitudes would help promote communication on climate change issues among stakeholders. Thus, the survey targeted German citizens aged 15 years and above. It covered attitudes towards climate change and energy preferences among others.

The survey started with a general question on what respondents thought would be the most important issue in Germany in the next 20 years. Respondents ranked climate change in position 10 (3%), after refugee crisis (14%), immigration (13%) and poverty/inequality (9%) among others. As to what terms

came in mind on the mention of the words 'climate change', respondents gave responses such as "global warming (16%), unpredictable weather (15%), storms/flooding (13%), heatwave/droughts (13%), ice caps melting/rising sea levels (12%), pollution (11%), natural disasters (6%) and carbon emissions (4%) among others". This indicated that they could associate climate change with real life shocks/events and or disasters.

Further, respondents were asked if they were worried about climate change and approximately, 30% said they were extremely worried. Also, about 83% of respondents believed that the global climate was changing while 16% did not. On the other hand, on the cause of climate change, approximately 16% of the respondents were doubtful that human activities were responsible. About 15% believed that climate change was completely caused by human activity while about 34% believed that both natural and human activities were responsible. To further understand the emotions of respondents towards climate change; 19% were hopeful, 25% were afraid, 30% had outrage and 14% felt guilty. These emotions indicate a higher percentage of people having negative feelings towards climate change meaning its impacts cause distress. This is true given that about 31% of the respondents believed that weather would be more wet with more storms/floods/rain. About 29% believed that the weather would be unpredictable while about 24% believed that the weather would be hotter/warm/dry/heat wave.

Respondents were asked whether they would support the introduction of hefty penalties to countries that were unwilling to be part of the Paris agreement and 59% agreed. When respondents were asked which renewable energy sources they would like their government to support, they responded: Biomass (58%), Hydroelectric power (85%), Solar power (87%), Onshore wind power (74%) and Offshore wind power (80%). This shows high support among respondents for renewable energy transition in Germany. This came out much more clearly because about half of the respondents, approximately, 53% were willing to support policies to reduce energy consumption to help tackle climate change. Additionally, 69% were in support of subsidies on wind and solar power and 60% were in support of subsidies for the insulation of homes. Also, 62% of respondents were willing to support a law that would ban the sale of energy inefficient household appliances. 71% were also willing to support spending of public money to counter the impacts of climate change. Finally, 51% of respondents were willing to support policies that would give money to developing countries to help them deal with extreme weather shocks such as flooding and drought.

Overall, inferences from the survey shows that German citizens understand climate change, can emotionally connect with it and are willing to support policies geared towards reducing its impacts. By extension, these findings indicate a high support for the Paris agreement.

Learn More

<https://orca.cf.ac.uk/98660/7/EPCC.pdf>

INDIA

Submitted by Climate Scorecard Country Managers
RANJAN PANDA



44 percent of Indians feel the rich countries needed to do more to curb greenhouse gas emissions.

In the report "Global Concern about Climate Change, Broad Support for Limiting Emissions" published in November 2015 by the US based Pew Research Center, 76% of Indians interviewed by the researchers recognized Climate Change as a serious problem. This report examined global public opinion about climate change based on 45,435 face-to-face, and telephone interviews in 40 countries with adults 18 and older conducted from March 25 to May 27, 2015.

In Asia, as the survey points out, on average 45% of people believed that climate change is a matter of big concern. At 76%, Indians feel it the most. The Philippines, with 72% of people finding it a huge concern, comes second. The Chinese, surveyed by the Pew Center, show the least concern at 18%.

44% of Indians feel the rich countries needed to do more to curb greenhouse gas emissions, 30% felt developing nations needed to do just as much. 67% said that climate change could best be addressed through lifestyle change compared to technological innovation. 24% voted technology as the first priority action compared to lifestyle change.

Among choices of energy sources, 44% of them voted for wind, solar and hydrogen. While 28% still preferred oil, coal and natural gas; just 4% preferred nuclear power.

INDONESIA

Submitted by Climate Scorecard Country Manager
TRISTAN GRUPP



Among those negative impacts of climate that respondents listed were respiratory problems and disruption to food production from the longer dry season, greater exposure to water-borne illness and increases in mosquitos carrying Dengue and Chikungunya from frequent heavy rain and flooding, and increased illness from sudden changes in weather.

In 2012, Climate Asia, a BBC Media Action project, conducted a survey of 4,985 Indonesian households on perceptions of climate change and environmental changes as well as changes to other aspects of life such as water and energy. The research sought to understand how people respond to these changes.

Many Indonesians recognize recent changes to rainfall and temperature. Kalimantan and Sulawesi are notable. In Kalimantan, 88% of respondents perceived increased temperature and 69% perceived decreased rainfall. In Sulawesi, 81% perceived increased rainfall and 49% perceived increased temperature.

Half of the total population of Indonesia recognized increased temperature, especially if they lived in urban areas. The differences in rainfall perception in the report demonstrate variability of climate across the archipelago. A large majority of respondents perceived greater unpredictability of temperature, rainfall, and extreme weather events. Across the country, a large majority of people perceived decreases in trees; 68% in Northern Sumatra (notably, the province of the Leuser Ecosystem), 97% in Kalimantan, 70% of Southern Sumatra, 67% in Western Java. Overall, 63% of Indonesians perceived deforestation. 48% perceived species loss.

56% of Indonesians have heard of the term climate change. 24% have heard of it but do not know what it means. 17% had not heard of it. 74% of Indonesians believe climate change is happening. Of that 74%, 72% perceived one of the major causes to be deforestation. 54% of the 74% also listed population growth.

90% of urban dwellers are aware of climate change. 95% of Kalimantan residents are aware of climate change due to interventions to curb deforestation in the province. Respondents listed the type of climate change information they wanted; 74% listed information of future impacts, 70% listed information on the causes of climate change, and 60% wanted greater education on how to respond to climate change. For example, citizens of Jakarta anticipate more severe flooding and therefore wanted more information on how to prepare for floods.

22% of people in Indonesia “felt that they were experiencing a high level of impact now from changes in climate and the lack of availability of key resources”. This percent increases to 34% among the very poor. In particular, people in large urban areas worry that the impact will worsen in the future. 85% of surveyed people stated that changes in weather negatively impact their health. Among those negative impacts that respondents listed were respiratory problems and disruption to food production from the longer dry season, greater exposure to water-borne illness and increases in mosquitos carrying Dengue and Chikungunya from frequent heavy rain and flooding, and increased illness from sudden changes in weather.

The strongest motivators for climate action among respondents was a desire to be healthy (79% strongly agreed this was a motivation for taking climate action, 18% agreed) and the desire for a better future for their children (74% strongly agreed, 46% agreed). 48% strongly agreed and 46% agreed that care for the natural environment was a motivation. 44% strongly agreed and 46% agreed that the need to survive motivated them to take prevention action. Indonesians had the highest confidence (88% had confidence and 9% did not) in their local neighborhood when it came to responding to changes in water, food, energy supplies and weather followed by the local government (75%), provincial government (65%) and the national government (63%). Indonesians have the greatest faith in their local communities to address climate change and its effects.

Learn More

<http://dataportal.bbcmediaaction.org/site/assets/uploads/2016/07/Indonesia-Report.pdf>

ITALY

Submitted by Climate Scorecard Country Manager
MARTA MORELLO



Unlike the rest of Europe, right-leaning Italians are more concerned about climate change (78%) than left-leaning Italians (64%).

In a survey conducted by the research company GfK on behalf of the World Wildlife Fund climate change is one of the most serious environmental issues for 73% of Italians along with air and water pollution. About 88.5% of respondents believe that climate change is man-made while only 6% believe there is no correlation between climate change and human activities. Furthermore, 85% of respondents declared to be open to changing habits in a way that reduces GHG emissions. The openness to change lifestyle and reduce consumption is higher among groups with higher levels of education.

Finally, respondents indicated entities that in their opinion are at the forefront of the fight against climate change: first are environmental organizations (61%), then the EU (36%), and lastly the Italian government (15%) and oil companies (13%) with much lower scores. The survey was conducted on November 7-9 2016 on a sample of 1,500 Italians using CATI CAMI, CAWI (computer-assisted telephone/web/mobile interviewing) methodology.

The Pew Research Center conducted its Global Attitudes Survey (GAS) in the spring 2016 analyzing citizens' opinion of 10 different European countries, among which were Italy, Spain, France, Germany, UK, Poland, Greece, Hungary, Netherlands, Sweden. Global climate change was listed as the second major global threat on average, and 72% of Italian respondents listed it as a major threat to their country. Worries about global climate change have increased since 2013, when the percentage was 64%.

A second interesting insight reveals that unlike the rest of Europe, right-leaning Italians are more concerned about climate change (78%) than left-leaning Italians (64%). In Europe, this is only true for Italy and Hungary.

The GAS for Italy was conducted with face to face mode in Italian between April 9 and May 10 2016. The sample size was 1,016.

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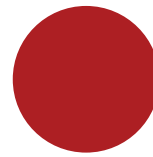
<http://www.pewresearch.org/methodology/international-survey-research/international-methodology/global-attitudes-survey/italy/2016>

To read further on the 2017 GfK survey http://www.termometropolitico.it/1257013_sondaggi-politici-cambio-climatico.html

To read more about the 2017 Pew survey <http://www.pewglobal.org/2017/08/01/globally-people-point-to-isis-and-climate-change-as-leading-security-threats/>

JAPAN

Submitted by Climate Scorecard Country Manager
KENTA MATSUMOTO



66% of people surveyed did not know that Japan was one of the highest GHG emitting countries in the world.

This report is a summary of three polls conducted in 2016 with findings on the attitudes to climate change amongst the Japanese population.

The first poll is the "Poll on Environmental Awareness 2016" (this source will be denoted as *1 hereafter) conducted by the National Institute for Environmental Studies. Out of 3,000 randomly chosen citizens over the age of 18 living across all 47 prefectures in Japan, 1,640 participated in the survey. Participants were interviewed during the period June 10th 2016 to July 4th 2016. 52.2% of the contestants were female and the age mostly reflects the population of Japan with many senior citizens over the age of 60.

The second poll is the "Poll Regarding Countermeasures for Global Warming" (this source will be denoted as *2 hereafter) conducted by the Cabinet Office. Out of 3,000 randomly chosen Japanese nationals over the age of 18, 1,816 were valid responses. Participants were interviewed during the period July 28th 2016 to August 7th 2016.

The third poll is the "Attitude survey Regarding Global Warming" (this source will be denoted as *3 hereafter) conducted by Trend Lab via an internet survey. Contestants were 500 male and female in their 20s to 50s. Equal numbers of male/female and equal numbers of 20s/30s/40s/50s age range participated during the period December 12th 2016 to December 13th 2016.

In *2, participants were asked whether they were interested in global environmental problems including global warming, ozone destruction, etc. The same question was asked in the 2007 survey and while 92.3% answered "interested" or "interested to a certain extent" in 2007, in *2, the number dropped to 87.2%. This may show that perhaps less Japanese are interested in global environmental problems than before.

Focusing on climate change/global warming, 90.9% of participants in *1 were "worried" or "slightly worried" about its impacts, and 76.7% thought that they already felt the effects of climate change. When asked about the causes of climate change in *1, 36.7% replied "mostly anthropogenic" and 41.2% chose "partly natural and partly anthropogenic." Over half the participants felt that there are more negative impacts than positive impacts from climate change.

Consequently, 72.6% thought that they need to change their lifestyles to reduce impacts on climate change/global warming in *1. It seems like most Japanese are aware of climate change and believe

that it is an important issue. On the other hand, according to *1, only 22.6% answered that many people around them who think that we need to take action for climate change/global warming, and only 17.2% replied that they have people around them who are already taking action for climate change/global warming.

Regarding the Paris Agreement, 59.7% knew the Paris Agreement but 52.6% of these have only heard of its name. Similarly, *3 revealed that while 56% of people were interested in international actions for global warming, only 9% knew COP22, and less than 10% knew details of the Paris Agreement. Also, 66% of people did not know that Japan was one of the highest GHG emitting countries in the world.

In conclusion, it seems like many citizens in Japan are interested and concerned about climate change, yet few take action and many lack knowledge on international climate negotiations.

Learn More

*1: <https://www.nies.go.jp/whatsnew/2016/jqjm10000008nl7t-att/jqjm10000008noea.pdf>

*2: <http://survey.gov-online.go.jp/h28/h28-ondanka/gairyaku.pdf>

*3: <https://prw.kyodonews.jp/opn/release/201701137868/>

MEXICO

Submitted by Climate Scorecard Country Manager
RAIZA PILATOWSKY GRUNER



It is clear that we are still far away from having a comprehensive idea about the attitudes, perceptions and concerns of people about climate change in Mexico.

Unlike other countries, Mexico has insufficient information about the perception, attitudes and knowledge its people have about climate change and global warming, and even less about the Paris Agreement.

The National Institute of Geography and Statistics (or INEGI), approaches this issue in its Home Survey about Science and Technology Perception, which takes place every two years and surveys one resident of every home older than 18 years old, living in urban centers with a population of more than 100,000 people. For the last survey, in 2015, the sample took up 3,200 homes from those urban areas, where they were asked about their level of comprehension about the terms “greenhouse effect” and “global warming”. As we see in the following table, most people consider their understanding of those terms as “regular” or “bad”:

	Greenhouse effect				Global warming			
	Good	Regular	Bad	Doesn't know the term	Good	Regular	Bad	Doesn't know the term
Percentage (%)	17.5	42.4	30.8	9.3	22.0	47.4	26.2	4.4

Due to the general nature of this survey (perception of science and technology in Mexico), this is just a glimpse of climate change perception/knowledge in Mexico, since there isn't any more climate change related information. Moreover, all the other studies available are either very localized—performed at a school, city or municipality—while those done at the national level have methodological issues that lead to a certain distrust of the data.

On a wider context, a poll carried out by GlobeScan in 2015 shows that 69% of the population in Mexico considers climate change as very serious. The results also show that only 31% of the public considered that Mexico should have played a leadership role during the COP-21 in Paris, in contrast with the 38% who said the same for the COP-15 in Copenhagen.

It is clear that we are still far away from having a comprehensive idea about the attitudes, perceptions and concerns of citizens about climate change in Mexico. The limited data that we have is also skewed towards the urban and adult. This risks ignoring other groups like rural populations that are mostly indigenous communities, as well as the knowledge and concerns of younger generations who have been more exposed to the issue of climate change.

Learn More

INEGI's Home Survey about Science and Technology Perception, with methodology and results (in Spanish):

<http://www.beta.inegi.org.mx/proyectos/enchogares/especiales/enpecyt/2015/default.html>

INEGI's Home Survey about Science and Technology Perception PDF template (in Spanish):

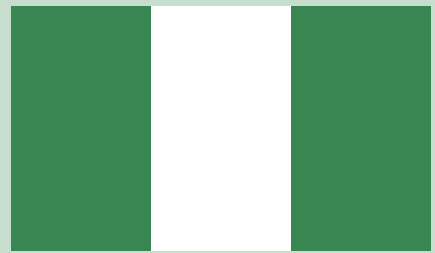
http://www.beta.inegi.org.mx/contenidos/proyectos/enchogares/especiales/enpecyt/2015/doc/enpecyt2015_cuest.pdf

GlobeScan's press release:

<https://www.globescan.com/news-and-analysis/press-releases/press-releases-2015/367-wealthy-countries-less-concerned-about-climate-change-global-poll.html>

NIGERIA

Submitted by Climate Scorecard Country Manager
CHIUDO EHRIM



The findings of a survey conducted in 2015 of 379 public officials and university students in Lagos State and Akwa Ibom State, Nigeria showed that most of those surveyed (about 340 individuals) believed that human activities were a significant cause of climate change.

Knowledge of Global Warming and Climate Change among Rural Folks

A survey conducted in 2012 of 120 farmers and other residents of four rural communities in Cross River State, Nigeria sought to assess the level of awareness of climate change causes and mitigation/adaptation strategies. More than 80 of the respondents were aware of climate change and about 80 individuals believed that human activities could induce climate change (Egbe and others, 2013). Environmental education and sensitization by the civil society sector in the rural communities were the main source of local knowledge of climate change issues.

Knowledge of Climate Change among Public Officials and University Students

The findings of a survey conducted in 2015 of 379 public officials and university students in Lagos State and Akwa Ibom State, Nigeria showed that most of those surveyed (about 340 individuals) believed that human activities were a significant cause of climate change. They were more aware of local climate change impacts than of the effects across Nigeria; and their personal experience influenced their knowledge of and attitudes towards climate change (Ojomo and others, 2015).

Knowledge of Climate Change among Urban Residents

A survey was conducted in 2015 of 200 residents of urban parts of Ibadan in Oyo State, Nigeria. The results of the study which assessed respondents' knowledge of global warming and mitigation measures indicate that while most respondents had significant knowledge of global warming, they were indifferent as to its importance. (Adio-Moses and Aladejana, 2015).

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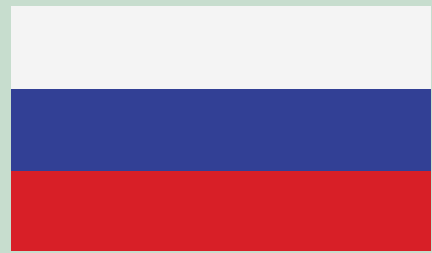
The research paper on knowledge of global warming and climate change among rural folks is available at: <http://www.ccsenet.org/journal/index.php/jsd/article/viewFile/34484/19647>

The research paper on knowledge of climate change among public officials and university students can be found at: www.mdpi.com/2076-3298/2/4/435/pdf

The research paper on knowledge of climate change among urban residents is available at: http://www.abrmr.com/myfile/best_track/conference_24447.pdf

RUSSIA

Submitted by Climate Scorecard Country Manager
VERONIKA KOZLOVA



Almost half of the respondents see the problem of climate change as a warning to future generations. A third of the respondents think that this problem needs to be addressed now, and one out of every seven respondents believes that global warming does not pose a threat to anyone.

In April 2016, a survey was conducted by Public Option Foundation and the question asked was about the biggest current threats that worry the Russian population. The survey covered fifteen hundred respondents from 104 settlements in 53 regions. According to the survey, the biggest threats for Russian people were international terrorism and nuclear war (35%). The other answers included: the threat of contamination of water, air and products, waste (22 %), natural disasters (19 %), deforestation and mass epidemics (18 %). Only 12% of the respondents said that climate change was a worrying problem for them, however, it could be observed that some of the responses in the survey were related to climate change issues (deforestation, waste production etc.). When the same question was asked in 2015, 15% of respondents were concerned with climate change problems, probably because in 2015 there was lots of media attention devoted to the Paris agreement discussion and people were more aware of the problem.

Another interesting survey related to climate change was conducted by the initiative of a working group of the presidential administration of the Russian Federation in June 2013. The survey's goal was to test awareness of the population as regards to climate problems.

The results of the survey revealed the following: 54% - the overwhelming majority of respondents knew about climate change, 36% of the respondents heard something about climate change and global warming taking place on the planet.

Among the respondents who believe that the planet is experiencing global warming, 33% believe that the reason for is human activity, and 42% believe that human activity and natural processes are equally important.

Almost half of the respondents see the problem of climate change as a warning to future generations.

A third of the respondents thinks that this problem needs to be addressed now, and one out of every seven respondents believes that global warming does not pose a threat to anyone.

About 40% of respondents believe that humanity already understands the importance of the problem of climate change, and 17% of respondents believe that people will never comprehend the gravity of this issue.

More than 40% of the respondents believe that climate change is a serious problem, however it should not be prioritized but rather treated equally with other important problems.

The majority of respondents (more than 70%) believe that the problem of climate change must be discussed at the international level. And, according to 45% of the respondents, Russia should play a leading role in this and make unilateral commitments to reduce greenhouse gas emissions. Slightly less respondents (36.7%) did not agree with this strategy. More than half of the respondents (53%) would support the introduction of economic incentives to reduce greenhouse gas emissions in Russia.

At the same time, every third respondent found it difficult to answer this question.

The survey also addressed the possibility of respondents giving up some benefits for the sake of climate protection. 41.4% of respondents were ready to take such a step, 40.6% were not ready to change their habits to reduce climate change impacts.

Among those who are ready to take some actions: 42% said they could change their transportation habits, for example, stop using a car, use public transportation, use the car less often", start using more environmentally friendly gasoline. About 9% of respondents said they could refuse to use plastic and polyethylene packaging.

Also, respondents said they were ready to abandon the use of certain types of household chemicals, aerosol cans, incandescent lamps, batteries. At the same time, about 10% of respondents said that nothing would force them to give up on certain benefits and habits for the sake climate change mitigation.

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<http://kremlin.ru/events/administration/19203>

<http://climaterussia.ru/politika-i-finansy/poteplenie-k-izmeneniyu-klimata>

SAUDI ARABIA

Submitted by Climate Scorecard Country Manager
ABEER ABDULKAREEM

لَا إِلَهَ إِلَّا اللَّهُ
مُحَمَّدٌ رَسُولُ اللَّهِ



The questionnaires focused on exploring the approach of the construction sector stakeholders to sustainable buildings both at the development and operational phases of projects. The findings of the survey indicate that the Saudi building industry has yet to realize the importance of sustainability.

To investigate the prospects of sustainable buildings in Saudi Arabia, two researchers from Glasgow Caledonian University and King Fahd University of Petroleum & Minerals conducted a study in September 2014 to analyze the results of a questionnaire survey conducted with pertinent professionals. The survey targeted the representatives of the key professions in the Saudi construction industry including architects, engineers, project managers, construction contractors, developers and investors. More than 500 questionnaires were distributed randomly amongst the professionals in the Saudi building industry covering the major cities in the country. The questionnaires, conducted between December 2011 and February 2012 employing web-based and in-person approaches, were designed both in English and Arabic. The analysis is based upon 122 responses received from architects, engineers, project managers, construction contractors, developers and investors.

The questionnaires focus on exploring the approach of the construction sector stakeholders to sustainable buildings both at the development and operational phases of projects. The findings of the survey indicate that the Saudi building industry has yet to realize the importance of sustainability. The participants were asked to rank several factors such as cost, modernity, development time, architectural outfits, quality and durability, safety, and sustainability in terms of their priority score where 1 is the most important and 7 is the least important. 75% of the participants considered cost and quality and durability to be the most important factor while most of the participants placed sustainability in the rank 7 as the least important factor.

The survey found that the level of formal education and work experience tend to have a positive influence on the appreciation of sustainable buildings. Participants with higher education levels (architect, engineer, and project manager) tend to have a higher level of knowledge of principles of sustainable-energy buildings with 43% for architects and 35% for engineers and project managers. Similarly, the experience with principles of sustainable-energy buildings is positively correlated with years of experience. Participants with 5 years or less of experience have less than 30% knowledge of sustainable buildings while those with 20 years and more had over 40% knowledge of sustainable buildings.

Learn More

Saudi Building Industry's Views on Sustainability in Buildings: Questionnaire Survey. Farajallah Alrashed and Muhammad Asif. September 2014. Accessed from http://ac.els-cdn.com/S1876610214034316/1-s2.0-S1876610214034316-main.pdf?_tid=afedfd36-8b32-11e7-968b-00000aabb0f6b&acdnat=1503843727_fc0ab019931071de28858e292413fa1a

SOUTH AFRICA

Submitted by Climate Scorecard Country Manager
LEE-ANN STEENKAMP

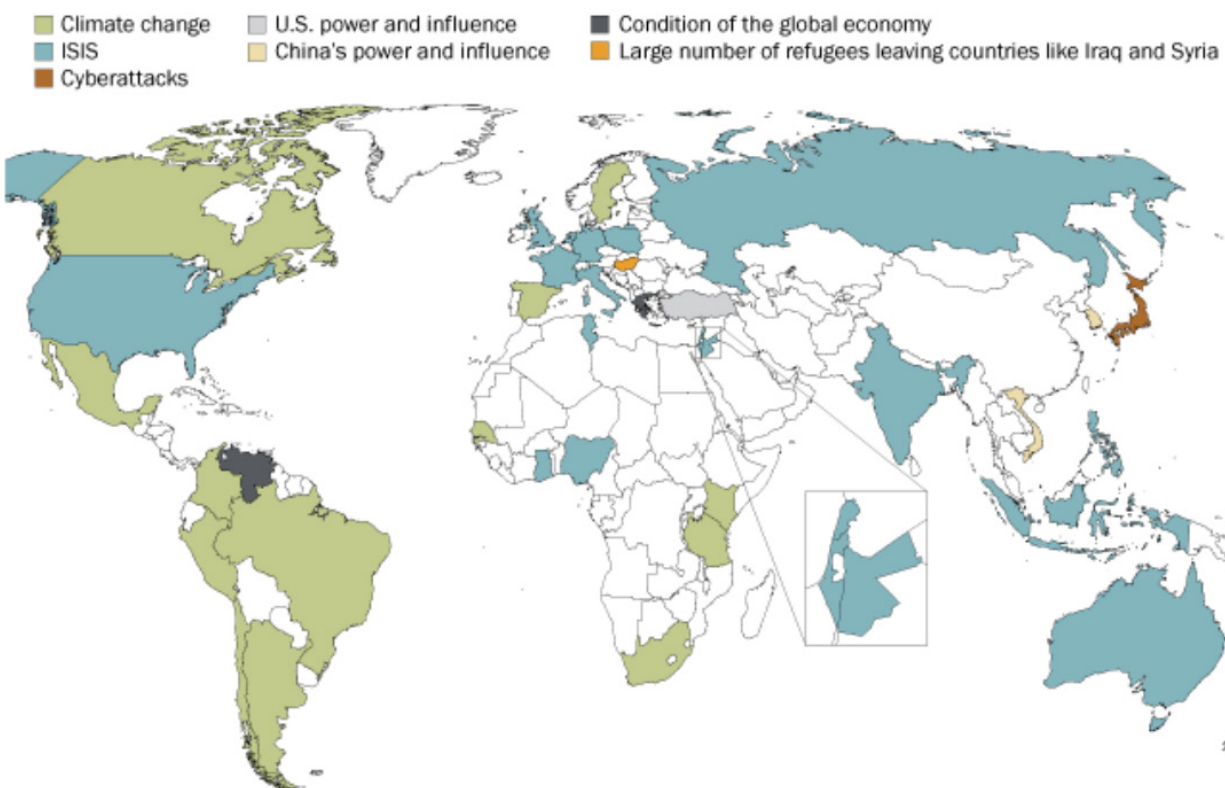


Climate change is viewed by South Africans as the top international threat to national security (ranking at 59%).

During spring 2017, the US based Pew Research Center conducted a public opinion poll among 38 countries regarding eight possible threats to national security.

Greatest threats around the world

Top threat to (survey country)



Note: U.S. power and influence not asked in the U.S., Russia's power and influence not asked in Russia, ISIS not asked in Turkey.
Source: Spring 2017 Global Attitudes Survey. Q17a-h.

It is evident from the graph above that climate change is viewed by South Africans as the top international threat (ranking at 59%).

This high-level view of the general sentiment among South Africans is supported by a recent survey (30 March 2017 to 26 April 2017) by professional services firm, PWC. The GHG Market Sentiment Survey was conducted with 135 respondents from the International Emissions Trading Association (IETA) member representatives from a broad range of locations and organization types. Their findings indicate

that climate change action in South Africa "is a must for corporates and policymakers". Indeed, 77% of respondents viewed climate change as a priority for their board.

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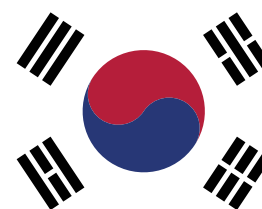
Survey conducted by PEW: <http://www.pewglobal.org/2017/08/01/globally-people-point-to-isis-and-climate-change-as-leading-security-threats/>

IETA market sentiment survey:

http://www.ieta.org/resources/Market%20sentiment%20survey/IETA%20GHG%20Market%20Sentiment%20Survey%202017_FINAL_lowres.pdf

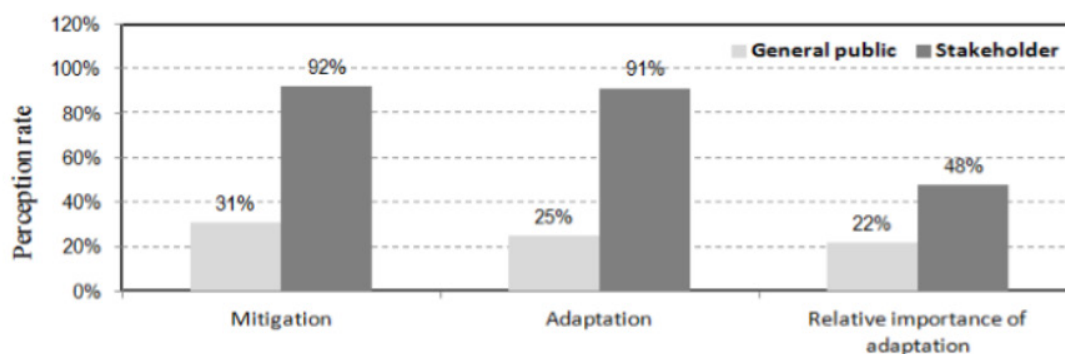
SOUTH KOREA

Submitted by Climate Scorecard Country Manager
EUNJUNG LIM



Only 20% of the general public respondents answered that mitigation is important, which indicates that more efforts should be made to promote awareness of climate change to the public.

Fig. 2. Awareness of climate change-related terms.



A 2015 Comparative Study of Perception of the Public and Stakeholders to Climate Change Adaptation can be evaluated as the country's first national awareness survey on adaptation to climate change. The study's authors evaluated the conceptual recognition of climate change-related terms in order to evaluate the conceptual perception about climate change. The concept of climate change, especially mitigation and adaptation, is not easily understandable to the general public. In this study, the authors use Kyoto Protocol, IPCC, weather change, mitigation/adaptation, greenhouse gas and sea level rise as the terms related to climate change.

The findings from the survey and policy recommendations can be summarized as follows. First, only 20% of the general public respondents answered that mitigation is important, which indicates that more efforts should be made to promote awareness of climate change to the public. Second, the level of awareness of the public in responding to climate change is significantly lower than that of environmental stakeholders. The response rate of the general public perceiving climate change mitigation concept is about three times lower than that of stakeholders and the rate for adaptation was about four times lower. (See Figure 2 below.) These results suggest that it is necessary to diversify and promote information about climate change through public education programs.

Learn More

Yunji Jeong and Jongsik Ha, "The Comparative Study of Perception of the Public and Stakeholder to Climate Change Adaptation," *Journal of Climate Change Research* Vol. 6, No. 2 (2015).

The following table (Table 1) shows you the demographic composition of their survey respondents.

Table 1. The general public and stakeholder demographic characteristics of survey respondents

Characteristics		General public		Stakeholder	
	Total	1,011	(100.0%)	101	(100.0%)
Gender	Male	502	(49.7%)	85	(84.2%)
	Female	509	(50.3%)	16	(15.8%)
Age	20 ~ 29	182	(18.0%)	8	(7.9%)
	30 ~ 39	186	(18.4%)	21	(20.8%)
	40 ~ 49	214	(21.2%)	27	(26.7%)
	50 ~ 59	201	(19.9%)	41	(40.6%)
	60 ~	228	(22.6%)	4	(4.0%)
Region	Seoul	207	(20.5%)	25	(24.8%)
	Incheon/Gyeonggi	291	(28.8%)	19	(18.8%)
	Daejeon/Chungcheong/Sejong	103	(10.2%)	20	(19.8%)
	Gwangju/Jeolla	104	(10.3%)	14	(13.9%)
	Daegu/Kyungpook	102	(10.1%)	3	(3.0%)
	Busan/Ulsan/Gyeongnam	163	(16.1%)	13	(12.9%)
	Gangwon/Jeju	41	(4.1%)	7	(6.9%)

SPAIN

Submitted by Climate Scorecard Country Manager
ESTEBAN SANCHEZ-GARCIA



95% of the Spanish population would “impose strict controls and heavy penalties” on industries that damage the environment.

Metroscopia is one of the most prestigious public opinion research institutes in Spain. In 2016, Metroscopia made a survey in Spain asking about “Sustainability” and the results showed that 87% of the Spanish population consider it necessary to create more green spaces and 95% of the Spanish population would “impose strict controls and heavy penalties” on industries that damage the environment. The study also showed that 71% of the Spanish population do not believe that the earth will be able to recover from the environmental damage that humans have created..

An analysis made by Rastreator.com in June of 2016 about the concerns of the Spanish population towards the environment and the use of renewable energy, shows that 53% of the Spanish population would be willing to pay more for energy from renewable sources and 92.8% think that renewable energy should be promoted. The survey showed that the autonomous communities of Murcia, Extremadura and the Canarias islands are the ones more aware of the necessity to preserve the environment.

From these numbers, it is possible to tell that most of Spain is aware of the need to accomplish the goals of the Paris Agreement and that if the main actors, meaning government and industrial leaders, take actions to preserve the environment then the people will support them.

THAILAND

Submitted by Climate Scorecard Country Manager
NEEBIR BANERJEE



Climate change related disaster risk reduction traits differs considerably by gender. For instance, women have a greater likelihood of collecting emergency supplies, formulating a family emergency plan and are more than likely to out-migrate from tsunami-vulnerable areas

A research paper by Nopphol Witvorapong, Raya Muttarak and Wirapom Pothisiri looks in-depth into both the 2004 and 2012 tsunami events in Thailand, which are the end-result of climate change processes. The linkage between climate change processes and the tsunami events were addressed in a 2009 article by Reuters. The article highlights a statement made by Professor Bill McGuire from

University College London. Professor Bill McGuire told Reuters during an interview that "When the ice is lost, the earth's crust bounces back up again and that triggers earthquakes, which trigger submarine landslides, which cause tsunamis,". The survey presented in the research paper stresses that climate induced natural disasters like tsunamis might be more intensified in the near-future, which in turn might increase the level of disaster risks and vulnerability levels in Thailand amongst poorer/ marginalized sections of the society, elderly people, children, women and livestock populations.

Phang Nga province in Thailand was selected as an appropriate study site for the survey because the province was one of the hardest-hit areas among the six tsunami-affected provinces in Thailand during the 2004 tsunami. In the Phang Nga province, there were widespread losses of human lives along with massive economic losses resulting from damages to buildings and infrastructures. On April 11, 2012, an earthquake of magnitude 8.6 occurred under the Indian Ocean floor, which happened in northern Sumatra just 434 kilometres southwest of the Banda Aceh province in Indonesia. Following the earthquake there was another major shock of magnitude 8.2 followed by a series of aftershocks. As a result, there was a tsunami alert generated in the countries situated along the Indian Ocean, which also included Phang Nga province and the provinces situated in the western coastlines of southern Thailand. In 2012, a major tsunami event did not occur similar to the one in 2004 as the plate moved horizontally rather than vertically. Similarly, in April 16, 2012 an earthquake of magnitude 4.3 occurred and the epicenter was in Thalang district, situated just 22 kilometres from the Phang Nga province in Thailand. The earthquake was followed by around 26 aftershocks between 16 and 22 April 2012.

After the 2012 earthquakes in the Indian Ocean, the research paper by Witvorapong et.al 2015 conducted a survey of 640 households in total from which 563 households were successfully interviewed, which gave the total response rate of 88%. The 563 households surveyed were living in tsunami-prone areas in Phang Nga, Thailand. The survey took place from 17 April 2012 to May 13 2012 and the survey data types typically included both individual and community-level data. For the survey, the participants included were the head of a household, the spouse or a household member aged 15 years or older. The core objective of the survey was to assess the tsunami-preparedness levels and extent of vulnerability amongst the 563 households surveyed. One of the main findings of the survey is that tsunami preparedness levels along with the likelihood of undertaking risk reduction actions is highly correlated with social participation whereas the extent of vulnerability decreases as social participation increases. For instance, individuals who are associated with increased involvement in community activities will have greater likelihood of following disaster-related news very closely, having adequate emergency supplies and having a well-developed family emergency plan.

Another key finding of the survey, considers the suitable individual, household and community-level variables, which are associated with disaster risk reduction traits. It has been identified that an adverse effect from the 2004 tsunami is a driving force leading to preventive actions, which include behaviors like following disaster-related news closely and having a plan to migrate. In addition, the survey results find that, having experienced a tsunami event is not highly correlated with the likelihood of preparing emergency supplies and having a well-developed family emergency plan. Here, the survey findings indicate that while previous experience in a tsunami event might be positively associated with increasing the preparedness level in general. However, having experienced a tsunami event does not always strengthen the preparedness measures. Furthermore, the survey findings highlight that

individuals having tertiary education are more than likely to collect/gather supplies and implement a family emergency plan whereas having prior tsunami experience does not lead such actions.

Finally, the findings point out that disaster risk reduction traits differs considerably by gender. For instance, women have a greater likelihood of collecting emergency supplies, formulating a family emergency plan and are more than likely to out-migrate from tsunami-vulnerable areas. The findings also highlight from the community level perspective that a community possessing greater proportion of highly educated women will have a greater tsunami preparedness level as education increases the access to socio-economic resources and disaster-related information. The survey findings address the crucial role that educated women play, which in turn decreases the extent of vulnerability amongst the community by reducing malaria risk amongst children, decreasing disaster-related deaths, and further strengthening their adaptive capacity. A community with more educated women will be able to effectively adapt and cope with a tsunami event.

Therefore, the core findings of the research survey, is both on the linkage between individual and community-level perspectives. From the individual level perspective, the surveys indicates how an individual's involvement in community-based activities leads to greater disaster preparedness and intention to out migrate from disaster prone areas thus increasing the extent of social participation within a community-level. Finally, the enhancement of social participation within a community, is recognized as an imperative for decreasing vulnerability levels and disaster risks.

Learn More

To learn more about the research survey that was conducted in Phang Nga province Thailand please visit <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4495990/>

To learn more about the article by Reuters, which provides the linkage between climate change processes and tsunami events, please see <http://www.reuters.com/article/us-climate-geology/global-warming-may-bring-tsunami-and-quakes-scientists-idUSTRE58F62I20090916>

TURKEY

Submitted by Climate Scorecard Country Manager
OZLEM DUHAN



92% of farmers surveyed agree that climate change is a problem all over the world; and 93% believe that the reduction of forests directly affects the climate

The results of the Survey on Climate Change Awareness of Farmers held in December 2015 were published in a report in 2016.

Out of 200 farmers who participated in the survey, 56% were primary and secondary school graduates, while the remaining 44% were trained in high schools and universities and received master degrees. 60% of the respondents were farming for 20 years or more. The average size of each farmers land was 110 acres, which is approximately two times the Turkey average.

Some of the survey results are as follows:

- 92% of farmers agree that climate change is a problem all over the world
- 93% of the farmers stated that the reduction of forests directly affects the climate
- 93% of farmers report that agricultural production is at risk in extreme weather conditions

In short, the vast majority of the farmers participating in the survey accept that the climate change is a major problem that affects their agricultural production. They are also willing to cooperate in taking measures to mitigate the effects of climate change. The awareness seems to be high but this may be due to the fact that farmers are most affected by climate change and feel their immediate impact.

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Çiftçilerde İklim Değişimi Farkındalığı Anket Sonuçları 2016



In Wave 1 of a tracking study in 2012, 15% registered natural process-only responses, whilst 38% registered human activity-only responses. In Wave 21, 5 years later, 10% registered natural process-only responses, whilst 42% registered human-activity only responses.

In March 2012, the UK Governments' Department for Business, Energy & Industrial Strategy (BEIS), launched the 'Climate Change Public Attitudes Tracker' survey. A new 'wave' of this survey is completed four times every year. In 'Wave 22' – June to July 2017 – face-to-face home interviews were conducted in 2097 households across the UK. This sample was chosen using the Kantar TNS Omnibus, which utilizes the 'random location quota sampling method'.

Regarding attitudes to climate change, the first question asked in each survey 'wave' is: 'How concerned, if at all, are you about current climate change?'. The possible answers are 'Very', 'Fairly', 'Not Very' and 'Not at All' Concerned, as well as 'Don't Know'. In Wave 2, 65% registered 'concerned' responses, whilst 35% registered 'unconcerned' responses. In Wave 21, 71% registered 'concerned' responses, whilst 27% registered 'unconcerned' responses. This represents a flip, over 5 years, of +6% of the public being concerned, and -8% of the public being unconcerned.

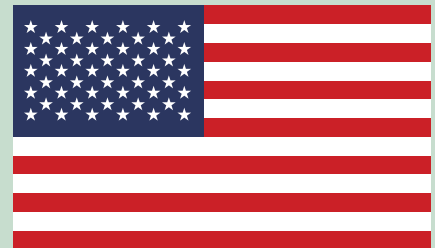
The second question asked on climate change is: 'Thinking about the causes of climate change, which, if any, of the following best describes your opinion?' The possible answers include climate change being, 'Entirely' or 'Mainly' caused by natural processes, 'Entirely' or 'Mainly' caused by human activity, 'Partly Caused by Both', 'I don't think there is such a thing as climate change', or 'Don't Know'. In Wave 1, 15% registered natural process-only responses, whilst 38% registered human activity-only responses. In Wave 21, 10% registered natural process-only responses, whilst 42% registered human-activity only responses. This shows a flip of -5% of the public considering that climate change is only the result of a natural process, and +4% of the public thinking that it is only the result of human activity. However, from Wave 1 to Wave 21 there was only a +1% change in responses that state climate change is partly the result of both (42% to 43%).

Learn More

<https://www.gov.uk/government/statistics/energy-and-climate-change-public-attitudes-tracker-wave-22>

UNITED STATES

Submitted by Climate Scorecard Country Manager
STEPHANIE GAGNON



On April 17, 2017, the Yale Program on Climate Change Communication published an additional study of data gathered from registered voters in the time leading up to the 2016 federal election showing that 69% of registered voters believed the U.S. should participate in the Paris Agreement

The Yale Program on Climate Change Communication recently published a survey of adults' perceptions of climate change across the United States from 2008-2016, based on statistical models drawn from survey data of over 18,000 respondents over the age of 25 in the United States, combined with Census data from the same time period. Full access to the data is provided here: <http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/>. This interactive platform provides a visual depiction of the geographically-varied data, and can be used to estimate public perceptions of global warming and related issues at the county, state, and national level, as well as by congressional district.

The most significant finding of this survey is that, despite the efforts of very conservative politicians to convince the population that global warming is a hoax, 70% of adult Americans believe that global warming is happening, compared to only 12% of adult Americans who do not believe that global warming is happening.

While these numbers are reflective of positive trends in American perceptions of climate change, more than one in ten Americans does not believe in global warming, a larger number than would be

comforting to proponents of international action on climate change.

The location with the largest percentage of respondents who believe that global warming is happening is Washington, D.C., and the highest percentages by county tend to be coastal counties, likely those that face the greatest threat from sea level rise. Lower percentages tend to be found in inland counties that tend to vote Republican, although the study points out that political party affiliation is not necessarily correlated with increased or decreased percentages of global warming believers.

Although, in a world with a global climate agreement that is entering its second year of force, it may seem that surveys investigating belief in global warming lag behind the modern pace of the world, the United States' federal administration has indicated its intentions to act directly in opposition to climate change mitigation on the basis that global warming is a hoax. Therefore, it is more important now than ever to demonstrate that more than half of Americans do, in fact, believe that global warming is happening.

On April 17, 2017, the Yale Program on Climate Change Communication published an additional study of data gathered from registered voters in the time leading up to the 2016 federal election showing that 69% of registered voters believed the U.S. should participate in the Paris Agreement. This survey and its results can be found here: <http://climatecommunication.yale.edu/publications/5-1-voters-say-u-s-participate-paris-climate-agreement/>. Also shown by this survey is that almost half of Trump voters believed the U.S. should participate in the Paris Agreement (47%), compared to 27% who believed the U.S. should not. This finding is significant, because it shows that, contrary to statements by President Trump that most of his voters support pulling out of the agreement, a majority of Americans support the U.S.' participation in it.

Learn More

Yale Program on Climate Change Communication website:

<http://climatecommunication.yale.edu>

New York Times, "How Americans Think About Climate Change, in Six Maps:"

<https://www.nytimes.com/interactive/2017/03/21/climate/how-americans-think-about-climate-change-in-six-maps.html?mcubz=0>

ABOUT

Climate Scorecard is a participatory, transparent, and open data effort to engage all concerned citizens in supporting the implementation of the new 2015 Global Climate Agreement.

Background

Over 190 countries endorsed a new global climate agreement in December 2015 at a United Nations meeting in Paris (known as COP21). The Paris Agreement is designed to stabilize the earth's climate and prevent our atmosphere from heating-up above a global warming tipping point of 2 degrees Celsius, beyond which scientists warn extreme ecological disasters will occur. The success of the new agreement is contingent on the efforts all countries, as well as non-state actors, must make to increase and honor their commitments to reduce greenhouse gas emissions.

In 2015, in preparation for COP 21, most countries submitted pledges, also known as Intended Nationally Determined Contributions (INDCs), to reduce their greenhouse gas emissions by 2030 or earlier. The Paris Agreement recognizes that these pledges, while good starting points, are insufficient to avoid having the planet warm beyond 2 degrees Celsius. Therefore, all countries are encouraged to revisit and strengthen their pledges before the agreement goes into effect in 2020.

Climate Scorecard is a mechanism for supporting efforts needed to implement the new Paris Agreement. Such efforts include encouraging countries to increase their emission reduction pledges, tracking efforts to strengthen pre-Paris INDCs, making sure that countries put in place policies and programs to achieve their reduction targets, and holding nation-states accountable for fulfilling the promise of the Paris Agreement.

HOW IT WORKS

The Climate Scorecard team has established a website - www.climatescorecard.org - where everyone – citizens, organizations, businesses, researchers, members of governments, journalists – can share information related to emission reduction efforts in the top 25 greenhouse gas-emitting countries. Each of the 25 top greenhouse gas emitting countries has a page on our website where concerned stakeholders can post information related to the status of their country's pledge. Climate Scorecard's website also provides a set of 6 targeted results (see below) that we believe each country needs to achieve by 2020 in order to successfully implement the new Paris Agreement. These results are based on recommendations from the agreement itself, benchmark country emission reduction pledges, and our own research that has identified goals that all countries need to reach. Our targeted results provide a framework for tracking progress made by the top 25 greenhouse gas-emitting countries.

Results for the Top 25 Greenhouse Gas-Emitting Countries to Achieve by 2020

- Strengthens its 2015 agreement pledge, or adheres to a pledge that meets Result 3 in the Framework
- Agrees and implements measures to reach the target of 20% unconditional emission reduction by 2020
- Agrees and implements measures to reach the target of 30% unconditional emission reduction by 2025
- Adopts the UN suggested baseline year of 2010 from which to calculate future reductions
- Agrees to and implements policies that achieve 100% renewable energy by 2050
- Make all aspects of its emission reduction process, including policy development and implementation, transparent and inclusive

WHO WE ARE

An outstanding team of organizations and individuals is implementing Climate Scorecard. Coordination of our effort is through a partnership between The Global Citizens' Initiative (TGCI) and EarthAction- non-profit organizations with missions focused on environmental protection and citizen engagement. TGCI and EarthAction worked together to successfully implement last year's Citizens' Campaign for a 2015 Global Climate Agreement (www.climateagreementcampaign.org).

TGCI and Earth Action have recruited a team of 25 environmental graduate students and young professionals who serve as Country Managers, building and supporting networks of organizations and people to contribute and share information related to the post-Paris progress of each of the top 25 greenhouse gas-emitting countries.

In addition, university-based experts provide quality control and address technical questions related to documents that are proposed for posting on the Climate Scorecard website.

For further information about Climate Scorecard please contact Ron Israel, Executive Director, The Global Citizens' Initiative (roncisa@gmail.com) or Lois Barber, Executive Director, EarthAction (lois@earthaction.org).