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<tr>
<td>Mark Abbott</td>
<td>Oregon State University</td>
<td>Oceanography</td>
<td>Tenured</td>
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| **First Choice Selection: Data-centric Science: Platforms, Policies, and Petabytes**
| How do we incorporate human systems into our traditional global models where the "rules" and laws governing their dynamics are largely unknown? |
|--------------------| Stanford University | Meteorology         | Professor|
| **First Choice Selection: Data-centric Science: Platforms, Policies, and Petabytes**
| Reducing uncertainty in both weather and climate prediction because of the huge human and economic impacts of erroneous prediction in both the short and long term. |
|--------------------| Florida State University | Biophysics         | Tenured  |
| **First Choice Selection: Data-centric Science: Platforms, Policies, and Petabytes**
| Bridging the gap between our understanding of scientific phenomena and the public's perception of the same. |
Sultan Hameed
Stony Brook University  Atmospheric  Tenured
First Choice Selection: Data-centric Science: Platforms, Policies, and Petabytes
The most pressing question is how climate will evolve in the coming decades and it rightly dominates current research priorities. However, a disproportionately large effort is devoted to routine analyses of different climate model projections although we don't know how to evaluate the reliability of these projections. There is relatively small focus on developing innovative methods of analyzing data to diagnose processes in the climate system.

Keah Schuenemann
Metro State College of Denver  Atmospheric  Early Career
First Choice Selection: Early-Career Science Forum
How can we better communicate science to the public?

Tapan Pathak
University of Nebraska-Lincoln  Agro Climatology  Early Career
First Choice Selection: Early-Career Science Forum
Science literacy and communication
What do you think is the most pressing scientific question facing our field and why?

**Larry Hopper**  
University of Louisiana  
Meteorology  
Early Career  
First Choice Selection: Early-Career Science Forum

How do we communicate forecast uncertainty to the public in a meaningful, actionable way that is simple enough for them to understand? This is a multi-faceted problem since research scientists and meteorological forecasters must have a clear understanding of forecast uncertainty themselves. This question applies across all spatial and temporal scales, including communicating future regional impacts of global climate change and communicating uncertainties in projected hurricane tracks, intensities, and impacts. Increasing our transparency with public officials and the general public would allow them to better evaluate their risk and make decisions while also showing that there is still a need for additional funding to help our community continue to reduce that uncertainty. However, we also run the risk of complicating our main take home message when communicating uncertainty to the public, so we need to ensure what we do is comprehensible to most people having diverse educational levels and backgrounds.

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**Clark Evans**  
University of Wisconsin-  
Meteorology  
Early career -  
First Choice Selection: Early-Career Science Forum

How should the atmospheric research community evolve in response to an uncertain-at-best funding environment, particularly considering the continual (and some would say unsustainable) influx of students from all backgrounds into undergraduate- and graduate-level studies in the atmospheric and related sciences?

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**Pallav Ray**  
Florida Institute of Technology  
Meteorology  
Early Career  
First Choice Selection: Early-Career Science Forum

How certain/uncertain are the climate projections?  
Should we devote most of our resources on climate change related issues?
What do you think is the most pressing scientific question facing our field and why?

**Song Lak Kang**  
Texas Tech University  
Atmospheric  
Early Career

First Choice Selection: Early-Career Science Forum  
multiscale atmospheric processes

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**Ryan Sriver**  
University of Illinois  
Atmospheric  
Early Career

First Choice Selection: Early-Career Science Forum  
How can we improve our understanding of high-latitude climate processes such as dynamic land ice and carbon fluxes, and provide more realistic representations of these processes (and potential feedbacks) in coupled climate models? These issues are vitally important to improving the reliability, and reducing the uncertainty, of future projections of key decision-relevant climate metrics (e.g. sea level rise).

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**Avelino (Ave) Arellano**  
University of Arizona  
Chemistry  
Early Career

First Choice Selection: Early-Career Science Forum  
Climate change attribution. This is an important (yet poorly-understood) topic which needs to be addressed to help shape near term and future policy.
Andrew Thompson
California Institute of Technology
Oceanography  Early Career
First Choice Selection: Early-Career Science Forum

Improving our ability to couple atmospheric, oceanic and biogeochemistry dynamics at the air-sea interface.

Gang Chen
Cornell University  Atmospheric  Early Career
First Choice Selection: Early-Career Science Forum

The most pressing scientific question, in my opinion, is to integrate the increasingly complex climate models with observations and improve our understandings of the climate predictions. Particularly, we need to quantify the uncertainties of the scientific results and communicate effectively with the general public. An important component of this efforts is to encourage young and early-career scientists in these activities.

Jake Gebbie
Woods Hole Oceanographic  physical  Early Career
First Choice Selection: Early-Career Science Forum

Climate science is facing a spectral gap in our knowledge – we seem to know most about seasonal to interannual dynamics, and also millennial (e.g., Ice Age) dynamics, but some of the most important timescales for future climate change, the decadal to centennial band, are the least well understood.
What do you think is the most pressing scientific question facing our field and why?

Richard Grotjahn
University of California
Atmospheric
Tenured
First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management
Can we anticipate, define, and quantify the probability of occurrence adequately for all the medium to high impact weather and climate events possible over the next 50 years under a changing climate?

James Miller
Rutgers University
Oceanography
Tenured
First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management
How can all the different global climate modeling efforts be better integrated to identify and understand the most critical issues related to climate change, and does the IPCC process foster such integration?

Clinton Rowe
University of Nebraska
Atmospheric
Tenured
First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management
As far as a strictly scientific question goes, we need to better understand the roles of clouds and aerosols in the climate system, especially in terms of climate change feedbacks.

Perhaps even more important, but not strictly a scientific question, we need to better communicate our science to the public as a whole and, more specifically, to politicians and policymakers.
Karen Shell  
Oregon State University  
Atmospheric  
Assistant  

First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management  
How to mitigate/adapt to anthropogenic climate change is the most pressing issue (e.g., what amount of CO2 is acceptable?). The big question I see NCAR playing a role in is: How can we organize the science, nationally and internationally, to efficiently address this issue (especially given the current funding "climate"), while increasing overall science/climate literacy and developing the capacity of nations, states, cities, underserved populations, and my cats to plan for climate change?

Xiaoqing Wu  
Iowa State University  
Atmospheric  
Tenured Full  

First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management  
The most pressing scientific question is the credibility of global climate models. If we don't focus our efforts on improving the representation and understanding of physical processes such as convective, cloud and radiative processes as theses processes are the key to the climate simulations, we will not go anywhere. Keep increasing the complexity of current climate models and adding the new components will not speed up the progress as we already see in the last twenty years.

Sharon (Shiyuan) Zhong  
Michigan State University  
Atmospheric  
Tenured  

First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management  
reduce uncertainty of climate predictions at regional scale
What do you think is the most pressing scientific question facing our field and why?

**Baylor Fox-Kemper**
University of Colorado  oceanography  early-career
First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management

Understanding of the Earth system has largely been a descriptive exercise until recently. Now, we have the computational power, and some of the needed theory, but too few of the needed scientists trained at a sufficient level in mathematics, physics, biology, chemistry, and scientific computing.

So, to phrase it as a scientific question:

Given our limited knowledge and resources, which of the known phenomena comprising the Earth system can we quantitatively project, which can we not project, and which should we be able to project but cannot yet?

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**Brad Marston**
Brown University  Physics  Tenured
First Choice Selection: Future Directions in Community Modeling: Science, Computer Technology, and Management

How will the general circulations of the atmosphere and oceans change as Earth warms? Are there better ways to approach answering this question than running increasingly complex models on ever faster supercomputers?

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**Kenneth Dewey**
University of Nebraska-Lincoln  Meteorology  Tenured
First Choice Selection: Integrating Research, Education, Diversity, and Engagement

Helping the public understand climate science and climate change issues
What do you think is the most pressing scientific question facing our field and why?

Richard Wagner  
Metropolitan State College  
Meteorology  
Mid-Career  
First Choice Selection: Integrating Research, Education, Diversity, and Engagement  
Communicating scientific knowledge and thinking to non-scientists including non-science majors.

Lodovica Illari  
Massachusetts Institute of Technology  
Meteorology  
Senior Lecturer  
First Choice Selection: Integrating Research, Education, Diversity, and Engagement  
Connection between global warming and extreme weather. Not only the connections with tropical systems but especially the connection with extreme winter weather and summer droughts. Is this connection real? and why?

Nolan Atkins  
Lyndon State College  
Meteorology  
Mid-Career  
First Choice Selection: Integrating Research, Education, Diversity, and Engagement  
How do we improve prediction of weather and climate and effectively communicate results to the public?
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<td>Kevin Goebbert</td>
<td>Valparaiso University</td>
<td>Meteorology</td>
<td>Early Career</td>
<td>First Choice Selection: Integrating Research, Education, Diversity, and Engagement</td>
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<td>Pam Knox</td>
<td>University of Georgia</td>
<td>Meteorology</td>
<td>Early Career</td>
<td>First Choice Selection: Integrating Research, Education, Diversity, and Engagement</td>
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<td>Eric Betterton</td>
<td>University of Arizona</td>
<td>Chemistry</td>
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<td>First Choice Selection: Observational and Experimental Research</td>
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Donald Hagen  
University of Missouri  
Physics  
Tenured  
First Choice Selection: Observational and Experimental Research  
The validation of computer models with observational data.

Michael Poellot  
University of North Dakota  
Atmospheric  
Tenured  
First Choice Selection: Observational and Experimental Research  
How can we best advance our skills in prediction of seasonal and longer term climate anomalies? Impacts of climate variability on water resources in particular are critical to societal, economic, and geopolitical issues. Agricultural production and water resource management would benefit greatly from improved long-term outlooks.

James Anderson  
Arizona State University  
Atmospheric  
Senior Research  
First Choice Selection: Observational and Experimental Research  
Rectifying discrepancies between observation and modeling (and improving the scale of modeling to help in this effort).
Andrew Detwiler  
South Dakota School of Mines  
Atmospheric  
Late-Career  
First Choice Selection: Observational and Experimental Research  
Communicating complex concepts to folks with varying levels of interest and education  

Philip Durkee  
Naval Postgraduate School  
Atmospheric  
Dean  
First Choice Selection: Observational and Experimental Research  
How do we communicate scientific results with accuracy and a reliable quantification of uncertainty?  

Alfred Stamm  
SUNY at Oswego  
Meteorology  
Tenured  
First Choice Selection: Observational and Experimental Research  
Upgrading the quality and quantity of data obtained on a regular basis.  

Additional comments, etc:  
Getting more undergraduates involved in research.
Barry Lefer  
University of Houston  
Atmospheric  
Mid-Career  

*First Choice Selection: Observational and Experimental Research*

Developing a better understanding of the climate system, in particular the short term climate feedbacks and interactions resulting in decadal scale climate variability. Scientists have done a good job of documenting climate change but not as well these "short-term" processes.

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Kenneth Eack  
New Mexico Institute of  
Atmospheric  
Tenured  

*First Choice Selection: Observational and Experimental Research*

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Rainer Lohmann  
University of Rhode Island  
Chemistry  
Mid-career  

*First Choice Selection: Observational and Experimental Research*

how can we switch to sustainable living?
What do you think is the most pressing scientific question facing our field and why?

Viney Aneja  
North Carolina State University  Atmospheric  Professor  
First Choice Selection: Observational and Experimental Research  
The US does not have a comprehensive nitrogen policy. Moreover, there are no control strategies (i.e. National Ambient Air Quality Standards, NAAQS) for mitigating the reduced form of reactive nitrogen compounds e.g. ammonia, organic reduced nitrogen, etc. Reactive nitrogen compounds have a host of adverse human health and environmental consequences including nitrogen cascading with additional adverse environmental impacts.

Kenneth Parsons  
Embry-Riddle Aeronautical  Atmospheric  Tenured  
First Choice Selection: Observational and Experimental Research  
Extending predictive skill and scientific knowledge across the disciplines of weather and climate is a pressing scientific issue for this decade. The time-scale of weeks to years has extremely significant benefits for society, the economy and the environment.

Perhaps a more pressing issue is opposing the anti-science attitude among many politicians in this country and the impacts of these attitudes on the budget. UCAR has not helped on this question by focusing much of its lobbying on climate issues when they should have been representing the broad atmospheric sciences enterprise.

For observations and experimental research, the most pressing question for NCAR is how to support disciplinary research in view of an NCAR that is increasingly preoccupied with integrative themes such as those above.

Christopher Weiss  
Texas Tech University  Meteorology  Tenured  
First Choice Selection: Observational and Experimental Research  
Given the expanse of societal sectors impacted, the initiation and sustenance of deep moist convection continues to be the most pressing (and most humbling) problem facing our field in my opinion.
What do you think is the most pressing scientific question facing our field and why?

**Gannet Hallar**  
Nevada System of Higher  
Atmospheric  
Mid-Career  
*First Choice Selection: Observational and Experimental Research*  
Mitigating climate change.

**Mike Newchurch**  
University of Alabama, Huntsville  
Atm Chem  
Tenured  
*First Choice Selection: Observational and Experimental Research*  
Integration of satellite observations and surface observations within an assimilation framework to diagnose and predict air quality.

Although great capability has been developed in this integrated framework to address physical meteorology, integration in the atmospheric chemistry domain is in its infancy. With anticipation of a global constellation of geostationary platforms within the decade, significant work lies ahead to take significant advantage of this new remote sensing capability.

**William Beasley**  
University of Oklahoma  
Atmospheric  
Tenured  
*First Choice Selection: Observational and Experimental Research*  
How do we make the observations necessary to constrain models?
What do you think is the most pressing scientific question facing our field and why?

Scott Rochette
The College at Brockport, SUNY
Meteorology
Tenured
First Choice Selection: Observational and Experimental Research
Increasing US student engagement in the sciences. This country no longer enjoys the cutting edge status with respect to science and math that we once had. What can we do to reverse this trend?

Yvette Richardson
Pennsylvania State University
Meteorology
Tenured
First Choice Selection: Observational and Experimental Research
How will we use the available computing and observational resources to best address outstanding questions relating to the smaller-scale impacts of climate change (e.g., the effect of a changing climate on severe storms)?

ADDITIONAL COMMENT:
I believe I am the university leader/moderator for the observational and experimental research session.

Ruth Varner
University of New Hampshire
Biogeochemistry
Mid-Career
First Choice Selection: Observational and Experimental Research
How can we link small scale processes to large scale models in a meaningful way? and because this is such a challenge, are we missing key controls that make us unable to accurately predict future climate?
Ping Yang  
Texas A&M University  
Atmospheric  
Tenured

First Choice Selection: Observational and Experimental Research

In my opinion, the most pressing scientific question is how to develop a strategic plan to enhance existing modeling capabilities to reduce the uncertainties in predicting the responses of the climate system to various internal and external forcings.

Various climate models have been developed. But substantial differences of the model outcomes still exist in some scenarios.

Betsy Stone  
University of Iowa  
Chemistry  
Early Career

First Choice Selection: Observational and Experimental Research

How will anthropogenic activity (particularly changes to the atmosphere) impact how we live on earth?

Saewung Kim  
University of California, Irvine  
Atmospheric  
Early Career

First Choice Selection: Observational and Experimental Research

I think that we need to have better understanding in photochemical processes in the troposphere that governs fates of short-lived radiative forcers such as methane, ozone and secondary aerosols for precise climate predictions.
What do you think is the most pressing scientific question facing our field and why?

Donald Wuebbles  
University of Illinois  
Atmospheric  
"Old"

First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena

Fully understanding the potential changes in climate and resulting impacts. There are many sub issues to this of course, but future generations depend on our having a sufficient answer so that the right policies can be put in place to protect them from the worst of the consequences of the changes in climate.

Steven Krueger  
University of Utah  
Atmospheric  
Mid-Career

First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena

How do clouds operate?

Clouds affect the Earth's energy budget and their response to climate change is uncertain.

Clouds produce precipitation, which is difficult to predict and is very important to know.

Clouds link microphysical, dynamical, and radiative processes.

Jefferson Snider  
University of Wyoming  
Atmospheric  
Tenured

First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena

Limits of Science

Reduction of problems to the particular, with investigation, often results in significant advance of understanding and useful outcomes. Particularly, when investigations are made using advanced observational tools (satellite, remote sensing, in situ, etc.). But, when faced with broad-based problems, particularly those with a social dimension, science stumbles and is often incapable of fixing on a path to a solution.
What do you think is the most pressing scientific question facing our field and why?

**Alan Robock**
Rutgers University  
Climate Change  
Tenured  
*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

What would be the impact of the use of nuclear weapons on the planet?

The small amount of research on this shows that this is the greatest danger humans pose to our planet, but there is very little work on this. We need to solve this problem so we have the luxury of worrying about global warming.

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**Anthony Lupo**
University of Missouri  
Atmospheric  
Mid-Career  
*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

The most pressing question is causes of climate change.

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**Nicole Mölders**
University of Alaska-Fairbanks  
Geophysics  
tenured  
*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

How to assess model performance in areas of low data availability and/or low temporal resolution of data? The improved computational capacity will allow for global runs with high resolution. This means we will produce data for areas we have not produced data at that high resolution before. Thus, we need to develop methods to assess what quality the data has in these regions and how to interpret them.
What do you think is the most pressing scientific question facing our field and why?

**Sumant Nigam**
University of Maryland  Climate  Tenured

*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

Discriminating between multidecadal natural variability and secular change components in the 20th Century climate records. This will facilitate development of more refined estimates of the secular warming trend.

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**Harlan Spence**
University of New Hampshire  Space Physics  Tenured

*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

Global change - though this is not my main area of research, it is one that increasingly informs what I do and why I do it. There can be no greater scientific question of understanding the drivers and the complex response of the terrestrial atmosphere to both internal factors (including, of course, anthropogenic) and to external factors (solar variability). Our field provides the multi-dimensional (both space and time) windows on this problem needed to quantify the drivers and response. It is not only just an exquisitely interdisciplinary and rich scientific problem, but also one of the greatest facing society and mankind today.

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**David Alexander**
Rice University  Solar Physics  Professor

*First Choice Selection: Predictive Science for the Earth System and Solar-Terrestrial phenomena*

How do we build a system-of-systems approach to understand the inter-connected regimes in our respective disciplines from and integrated data, theory and modeling perspective?

and

How do we communicate this complexity and our "trust" in the results to the public?
What do you think is the most pressing scientific question facing our field and why?

Ernest Agee  
Purdue University  Atmospheric  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
There is seemingly a lack of new discovery in the atmospheric sciences and I was hoping to see a topic along these lines. Our scientific practice now seems to take known pieces of information, and then put them together to examine a problem or a phenomenon in a new way, and this has been done successfully, and such has been very important. However, so many fields have new discovery and new break through, while such is largely absent in our field (even in the broad sense). For example, Project CLOUD at Cern could be such an example, but it will most likely not produce much that is new and exciting and provocative in the field of atmospheric science. We continue to do community science, and collegial science and team effort and field programs, etc. What is there left for us to discover, and how will we ever know, unless we do bold, out of the box, think-tank science (like so many of the pioneers in our respective subfields and disciplines). I write this as a challenge to our greatest minds and thinkers (which is clearly not me).

Noboru Nakamura  
University of Chicago  Atmospheric  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
Attribution of high-impact weather events to climate change (weather forensics)

David Smith  
United States Naval Academy  Oceanography  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How do we balance scientific issues pertaining to climate change with economic and social issues?
What do you think is the most pressing scientific question facing our field and why?

Jay Hobgood
Ohio State University
Meteorology
Mid-Career

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How to determine the local effects of climate change?

Fred Stafford
University of Chicago
Administrator
Late-Career

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
I am not knowledgeable enough to answer this.

Charlie Zender
University of California
Atmospheric
Tenured

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
What will be the next abrupt climate or ecosystem change?
Forecasting the next big change (fishery collapse, ice sheet collapse, methane spike, return of disco) is the first step toward planning for it.
What do you think is the most pressing scientific question facing our field and why?

Jennifer Adam
Washington State University
Hydrology
Early Career
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How do humans interact with the Earth system, including impacts of human activities on Earth system processes, and feedbacks of these interactions on humans and the resources that humans rely on?

Eric Hoffman
Plymouth State University
Meteorology
Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How to cope with and communicate uncertainly through all scales of atmospheric motion.

Redina Herman
Western Illinois University
Atmospheric
Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
I think the most pressing issue facing our field is how best to convey our expanding understanding of the world around us (climate change, ecosystems, etc.) to develop actionable ways to address concerns (policy, personal action, public perception, etc.) This is probably more of a social science/psychology question, but when the road blocks are emotional, rather than rational, then we have to learn to speak to people in a different way. I'm appalled at gut-level distrust of scientists and science. Statements along the lines of: scientists don't like it when things can be explained in a simple way, or this was perfectly safe until scientists came along and messed with it, illustrate this gut-level reaction.
Richard Mower
Central Michigan University  Meteorology  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How to communicate forecast accuracy to the general public on all time scales, particularly with respect to climate model forecasts.

William Easterling
Pennsylvania State University  Climate Impacts  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How can we get to more robust geographic detail on climate change ensembles experiments? Present trends in natural resource consumption suggest that future food, energy and water security will be challenged irrespective of climate change. Climate change exacerbates.

Chris Thorncroft
University at Albany  Atmospheric  Tenured
First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension
How do we fund trans-disciplinary research?
What do you think is the most pressing scientific question facing our field and why?

**Suman Singha**  
University of Connecticut  
Plant science  
Tenured  

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension  

Question: How do we convince policymakers that the current resource utilization model (for energy, water etc) is unsustainable?

Why? Failure to address these important issues will cause long term damage and result in undesirable consequences.

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**Scott Spak**  
University of Iowa  
Atmospheric  
Early Career  

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension  

Atmospheric science is converging toward a critical point where its primary purposes—prediction, understanding processes, paleo-studies, and policy-relevant projection—all face the same challenges: 1. Can we as a community meet the computational and methodological challenges of understanding the state and evolution of the atmosphere and human, Earth, and space systems at high resolution? From there... 2. How do we systematically reduce scientific uncertainty in couplings between these systems, and in how human activity affects them? 3. How can we systematically develop effective ways to identify "tipping points" in planetary support systems and employ this science to inform societal transitions toward sustainability?

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**Rich Dixon**  
Texas State University  
Climatology  
Tenured  

First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension  

Integrating the human dimension into a variety of topics such as weather warnings and climate change.
**What do you think is the most pressing scientific question facing our field and why?**

**Paul Lindseth**

University of North Dakota  
Aviation  
Tenured

*First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension*

How can we more accurately predict deadly weather events with enough lead time to allow for notification of all people affected and time for people to complete the most appropriate action given the situation?

**Alan Stewart**

University of Georgia  
Atmospheric  
Mid-Career

*First Choice Selection: Trans-disciplinary Science Addressing the Human Dimension*

Beyond a focus on "communications" and/or social media, what can we do to develop a deeper and richer understanding the human experience of weather and climate will result in greater responsivity and adaptation to short-term weather events and longer-term climatic changes? While there are some benefits to a communications perspective, I think that it has been over-sold a bit and will not be the "silver bullet" that some think it will be. After all, with a focus on the message only and not on characteristics of the receiver that take up weather-related messages, there are necessary limits on what messaging science can ultimately achieve....and there is more to human dimensions and social science that just communications.

What can be done to help frontline NWS personnel and other operational meteorologists to see and understand the human dimensions that are part of the way the various publics use weather products? Related to this, what can be done to change the culture/thinking/acceptance of NWS and other public/private organizations of the role of human dimension and social science research? ... A COMET module, maybe? Many of these organizations are very vertical and hierarchical and seem, in my experience with them, resistant to being open to what social science can add.