

Panel 6B: Outreach/Education: Ahsha Tribble

Jerry Schubel, Moderator: Introduction:

- 87% of scientists agree with evolution theory
- 34%(?) of public agrees
- 84% of scientists agree that global warming is occurring
- 49% of the public agrees
- Illustrates the need for further education

Frank Niepold, Panelist:

- Have had legislative mandates for education some time but did not have broad legislative authority for NOAA education until recently
- Required 20 year strategic plan plus 5 year implementation plan
- Occurred as climate change was growing as an important topic in education
- This is a broad educational mandate and is interpreted by NOAA to be much broader than the classroom and museums
- Audience we are focusing on is very expansive and need to engage the entire pyramid
- Weather Service, Estuaries, Sanctuaries, Ocean Exploration, Fisheries, Coral, Sea Grant- all focusing on climate
- No way that NOAA can reach the entire public with the resources it currently has; looking for a new approach by working with partners
- Need strong partners in the different agencies
- Collaboration is not something the community does naturally but audience sees very disparate, disorganized activities
- Collaboration has been better recently
- Audience does not care where information comes from as long as they know it is reliable, quality information
- **2 goals in the education plan:** a climate literate public and a coordinated, efficient investment in education between federal agencies
- Have 18 agencies signed on to the same climate literacy document
- Accountability and performance; are under very strong scrutiny requirements in education
- Requires a lot of work and measurement

Discussion

Jeanine Jones, Review Team: other opportunities like project WET

Frank Niepold: drought is a very high priority for NOAA right now so are beginning to build relationships with project WET; challenge right now is the coordination function

David Herring, Panelist: Once you know you are meeting the needs through a particular model, the idea is to replicate; can do live interactive broadcasts to science centers (have done them with centers in Mexico, Australia)

Molly MaCauley, Review Team: How do we know when we have met the goal of an “environmentally literate public”? are you using mediums that kids are used to? (facebook, twitter, youtube)

Frank Niepold: NOAA CIO has been working very progressively on building a NOAA youtube channel; anything we do should have high extensibility; Nickelodeon reached out wanting to partner; looking to reach out and move in highly extensible ways

David Herring: want to jump in on Molly’s first question; interact regularly with leading social scientists who have expertise in measuring literacy (John Krosnic, Tony Leiserowitz); coordinate with them so that they can ask questions in a way in that they can be used for multiple studies; compare data

Jean Brennan, Review Team: with respect to work force activities, how have you conducted your needs assessments and timeline and plan for addressing those needs?

Frank Niepold: Working with many internship, post-doc programs

Steve Running, Review Team: You mentioned GLOBE, is GLOBE still functioning? Do you have something similar planned?

Frank Niepold: there is language for starting to move GLOBE back to NOAA; has tremendous capabilities that are right for leveraging; market share is very low right now, a lot of people do not know about the program

Jean Brennan: came aware of climate literacy booklet; intro was through the GCRP website
Frank: was intentionally put at GCRP and sought GCRP product review; broad ownership was important for this task. it was a good move, marketed it well

External Panelist: Deborah Sliter, NEEF

- Going to give a good example of how NOAA is working effectively with non-profit towards climate literacy
- Working through multimedia and locals trust locals models
- NEEF is a congressionally chartered organization (in 1990 through Env Education Act), sister organization is EPA
- Selected 5 primary audience members for trusted professionals (on slide)
- Train them appropriately so they can influence the people they interact with on a day-to-day basis
- Earth Gauge (with AMS and COMET), NOAA has been a key to the success of this program; Margaret Davidson was an early champion of the program and worked closely with CSC
- Natural link between weather and the environment and weather reports are often the only source that the public receives scientific information on a regular basis

- Provide online courses to provide the background information that broadcast meteorologists need and are eligible for professional development requirements for AMS certification
- Observed impacts of climate change rather than predictions; connect with what public actually sees
- The more information we can give broadcast meteorologists, the greater chance we have of increasing literacy of their viewers
- On average, using information 2-3 times a month on air but weekly on websites
- Now giving them broadcast quality video clips; come with a script but are not narrated; doing this on both environmental and climate topics
- Climate facts now used weekly by USA Today webpage
- Many meteorologists use Twitter to share Earth Gauge information
- Now have a partnership with Captivate Network; have 8800 video monitors in about 800 buildings across the country
- Used many NOAA products to develop Earth Gauge and other products
- Developed a series of online courses for broadcast meteorologists with COMET; interactive 2-hour course designed for busy professionals helps meteorologists answer common questions they get from their viewers
- Want to identify NOAA as a trusted source for broadcast meteorologists
- Primary audience for course was for broadcast meteorologists but can probably be used by any professional; can be used by NOAA stakeholders
- Working with NOAA NETS committee to education NOAA employees; recommended for use by Dr. Lubchenco

Discussion

Michael Crimmins, Review Team: EPA has done quite a bit of climate change education on their web; how do you coordinate these types of activities in the future?

Frank Niepold: just knowing about what they are doing helps; EPA is open to dialogue with NOAA about the climate portal; cleanly understand who is doing what through dialogue and that happens early and often so that products can be molded together at nascent stages; prime modality is through interagency education committee at USGCRP

Michael Crimmins: are there turf issues you have to deal with?

Frank Niepold: they have been going away

David Herring: thinking of ways of tagging our content on climate portal to search for information across agencies; conversations have started

Marina Timofeyeva, Panelist: National Weather Service has 122 weather forecast offices that interact with public and they are recommending EPA brochures on climate change and variability

Ray Ban, Review Team: is there a leveraging opportunity with..??

Frank Niepold: some and are looking to increase

Ray Ban: if that unit is tasked with coordinating everything having to do with the weather and climate enterprise, who is minimizing duplication

Frank Niepold: historically, education has not been part of portfolio of GCRP; agencies asked to be enjoined in coordination at GCRP; asked for coordination process rather than them reaching down and coordinating all of us

Ray Ban: there seems to be a role for some oversight to create more discussion and coordination

Anthony Janetos: if I were in charge of a new nonprofit or state agency that had never worked with you before (capacity-building in particular), how would I get started?

David Herring: there is how things are today and where we are trying to go with climate portal; there will be a contact tab on the climate portal and live help; the idea is to have pathways clearly delineated for audience type

Jerry Schubel: think this is a very important question that applies to everything we have been talking about over the past few days; sometimes very difficult to access information and need to make it more penetrable

David Robinson: concern about contact; are you engaging the teachers who really know what is going on and the students

Frank Niepold: specific to K-12, it is very difficult; lots of barriers; different standards and different assessments across the country; these are the greatest barriers teachers identify with in addition to supervisors opposed to including this in curriculum; in process of developing any educational material, you need to have teachers involved in the process

Margaret Davidson: National Ocean Science Bowl, NOAA is one sponsor; working hard to infuse climate questions into this

Bill Hooke: AMS has a scheme to reach out to involved teachers (network of about 50 or so)

Jerry Schubel: budget restrictions on schools are huge

Betsy Blair: involving students

Jerry Schubel: good point, recommend book "Disrupting the Classroom"

Jake Rice, Review Team: interested in knowing if survey done in Europe and Canada has been done in the U.S.; public debate has been driven in those countries much more by public advocacy; how do we get them to use the effectiveness they have to convey messages?

Jerry Schubel: also need to be concerned about balance and accuracy

Jake Rice: also see questions in accuracy coming from extremely legitimate government sources

Jeanine Jones: people who are not involved in the process and how they get access-interesting to see how RISAs fit into this, they have rewritten academic content into English

Jean Brennan: part of fourth largest advocacy group; have very informed members because they are advocates politically, locally and nationally; need a higher end mechanism specifically as it relates to climate change science and controversies; in public it is perceived as controversy but with scientists it is consensus; so in terms of websites and the portals, not just about informing but getting them to be active

Anthony Janetos: very easy to engage big environmental NGOs, all you have to do is ask; reach of these organizations is very large; environmental NGOs essentially spearheaded all the regional coverage of the very first national assessment and was completely invaluable; so NGOs are huge resource and can be very valuable

Frank Niepold: expanded our scope of partners quite quickly and some NGOs are already strong partners; very noisy right now; a lot of missed opportunities and duplicated efforts but they are part of the equation

Jim Murray: did not talk much about work force development; NOAA is very worried about next generation of employees; there is going to be a need for more informed, educated people in climatology and it will be interesting for committee to consider what NOAA is in ensuring this

Jerry Schubel: how many FTEs in NOAA for exclusively developing education?

Margaret Davidson: do not have this number but it would be interesting to find this out

Bill Hooke: looking at list of questions on slide “Questions for Review Committee” and these should be questions you all ask every day when you go to work