Breakout Sector Findings and Reports

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Participants convened in one of seven different breakout sectors during the two-day workshop to discuss and address the four questions presented in the Introduction. Each breakout sector met three times during the course of the workshop. Breakout sector Chairs, Co-chairs and Rapporteurs were asked to develop a list of significant findings from their discussions and to write-up a report for their sector.

The following sectors were convened:

1) Business/Insurance and Industry
2) Energy and Utilities
3) Government and Resource Management
4) Human Health
5) Information Transfer and Public Awareness
6) Natural Resources
7) Recreation and Tourism

A summary of each breakout group's significant findings are found below. Detailed breakout sector reports by each sector's representatives follow this section.

SIGNIFICANT FINDINGS BY BREAKOUT SECTOR

1. Business/Insurance and Industry Sector

- Scientific evidence establishes that global warming has occurred and will likely continue to occur.
- There exists a discernible human contribution to climate change.
- Climate change and global warming could have substantial consequences.
- This sector's stresses are likely to be enhanced by climate change.
- Climate change will likely increase the loss of biodiversity, which affects this sector.
- Regional level detail regarding climate change impacts is lacking.
- A need exists for a centralized clearinghouse of data regarding climate issues.
- Technology exists (but is not used to its fullest) for reducing/controlling greenhouse gas emissions.
- A need exists for incentive programs to encourage reduction of greenhouse gas emissions, for the use of newer technologies, and to preserve existing carbon sinks.
- The political will is lacking in the face of scientific understanding to implement mitigation and coping strategies for climate change.

2. Energy and Utilities Sector

- Renewable energy should play a larger role in New England's energy future.
- Energy efficiency should be maximized.
- Economically viable energy efficient policies and initiatives need to be implemented which also result in reduced greenhouse gas emissions.
- The true cost of energy needs to be reflected in the price to the consumer.
- Governments must support efficiency initiatives.
- Federal funding for research, development and implementation of new technologies is needed.
- The energy/utilities and transportation sectors need to develop constructive options for dealing with climate change issues.
- A factual base of information regarding climate change, energy/utilities, and greenhouse gas emissions is needed in order to support decision making.

3. Government and Resource Management Sector

- A need exists to design an educational network which will operate across agency/group sectors in order to inform/discuss climate change issues with the general

* See Appendix V for authors' affiliations and addresses.

public, with emphasis in addressing legislators, foresters, industry and meteorologists.

- Develop and implement new technologies to reduce greenhouse gas emissions and to make use of alternative/renewable energy sources.
- Address stakeholders on their own turf when developing action plans and strategies for dealing with climate change issues.
- Promote increased energy efficiency.
- Improve natural ecosystem carbon sink capabilities through management practices.
- Use current cost-efficient programs as models to promote win/win situations in the area of climate change issues.

4. Human Health Sector

- There exists a lack of understanding and information regarding the effects of climate change on health related issues.
- The Northeast may be particularly vulnerable to health impacts due to climate change because of the geographical location.
- Increases in UVB radiation due to stratospheric ozone reduction may be deleterious to both plants and animals.
- Chemical air pollution may result in increased health hazards.
- Health issues may arise if high temperature events increase in frequency, severity and duration.
- Water quality is likely to be affected, which impacts human, animal and plant health.
- Algal blooms have the potential for increasing in coastal areas.
- Disease occurrence and pathways are largely not well understood under a warming scenario.

5. Information Transfer and Public Awareness Sector

- Scientific literacy needs to be enhanced and advanced in the public.
- Key concepts need to be identified and developed around the issues regarding climate change in order to advance the scientific literacy of the public.
- Information availability, accuracy, and credibility need to be addressed.
- One key information source would assist in scientific literacy advancement.
- Communication needs to be increased between various stakeholder groups.
- Scientists need to be more effective in communicating their results to the non-scientific community—many win/win situations exist when credible and accurate knowledge is transferred to the appropriate users.

6. Natural Resources Sector

- Natural resources and natural resource industries of New England/upstate New York will be sensitive to climate change.
- Climate change issues, in general, are not well understood by constituents of this stakeholder group.
- Research should be conducted to improve the current climate models on a regional level to provide stakeholders in this group with different climate scenarios with which to work.
- Enhance the understanding of impacts on economic, ecological and agronomic variables.
- Policies and strategies to mitigate and cope with climate change must be equitable on a national and global scale.

7. Recreation and Tourism Sector

- Recreation and tourism in the Northeast are influenced by climate conditions.
- Outdoor activities are dependent on the environment and its condition. Indoor activities are also affected by climate.
- Climate and the potential changes in climate do not evenly affect all sectors of recreation and tourism: many sectors are expected to be affected negatively, at varying degrees, while some sectors may stand to gain from the changes.
- Access to data needs to be enhanced.
- Outreach to stakeholders of this group needs to occur. Discussions of short-term and long-term issues and solutions should be encouraged.
- Non-motorized trail systems should be developed.
- Public transportation needs to be enhanced.
- This stakeholder group needs to develop coping and mitigating strategies at the sector-wide level.