Recreation and Tourism Sector Report

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INTRODUCTION

The Recreation/Tourism working group consisted of nine participants during the three sessions—six representatives from various sectors of the industry, two representatives from private environmental organizations, and one representative from a government agency. Drafts of this report have been reviewed and modified by members of the group to reflect all opinions presented.

During the three breakout sessions the group discussed and formulated answers to the four questions that we were asked to address. We began with a shotgun approach in identifying current stresses on the industry and then consolidated these stresses into a manageable list that would then direct our discussions of the other three questions.

We also developed an extensive matrix to show how each stress might affect each individual recreational and tourism activity in the face of climate change (the group used a general warming trend as an entering argument). This was an excellent exercise, since it soon became evident that even though activities were numerous, many were so interrelated that only a few groupings were necessary. We abandoned the matrix once this was realized. The activities fell into two basic categories—warm weather and cold weather activities.

It also became quite evident to us that the cold weather stakeholders had the most to lose in our warming scenario, although freshwater fishing and indirect revenues from fall foliage viewers were certainly in jeopardy as well. Ultimately, we felt that although certain coping strategies could soften the impact of climate change, mitigation was the only long-term solution to the problem.

SIGNIFICANT FINDINGS

- In the northeastern United States, recreation and tourism activities are profoundly affected by climate conditions. The sector is both highly climate-sensitive and a strong contributor to the regional economy.
- Many activities are outdoors and are intimately dependent on the environment (e.g., snow conditions, available fish or wildlife, wind (sail boating), fall foliage coloration).
- Even indoor activities are climate-dependent (i.e., greater response in adverse weather). There are comparatively few indoor facilities/complexes in the Northeast region.
- The concerns are not evenly distributed across all activities. In fact, there is a complex picture with large differences from activity to activity regarding what are the climate sensitivities, which seasons are most involved, and how easily can counter or adaptive measures can be employed (e.g., snow-making on ski slopes), cost/benefit margins, perceptions and other human behaviors.
- There are numerous specific cases and examples of highly adverse impacts on the sector that are climate-related. There is the perception that often the margins of economic viability are narrow, with success or failure dependent on the difference of several days or a few weeks of favorable weather conditions.

Three specific examples, among many, are:

1) bankruptcies for ski operators due to snowless or warm winters in the 1980's and early 1990s;
2) closure of camping and other outdoor facilities due to high incidence of mosquito-borne eastern equine encephalitis; and
3) curtailment of white water/rafting due to dry summer or fall weather.

THE FOUR QUESTIONS ADDRESSED

1. What are the current concerns and stresses facing regional stakeholders in the recreation and tourism sector?

Generic Concerns

- There is no concerted action or infrastructure to deal with the impacts of global climate

* See Appendix V for authors' affiliations and addresses.

changes and its regional impacts in a systematic and strategic way. Approaches have been piece-meal, poorly coordinated and would benefit from better information and strategies to cope and adjust.

- There is the perception that climate-incited impacts have increased in the past 20 to 25 years and have the potential for significant economic disruption.
- There are additional and more immediate and overwhelming concerns than climate and climate change. In particular, the demographic trends toward overuse and urbanization/commercialization are perceived to be large and growing threats.

Specific Concerns

- The ski and snowmobiling industries are in particular jeopardy from any increases in snowless or warm winters.
- Most segments of the industry are vulnerable to decreased air and water quality.
- Warm weather activities would be impacted by an increase in disease and pest outbreaks.

Climate-related Stresses and Other Stresses

- Weather changes in temperature, precipitation, seasonality, cyclical variability, reliability of forecasts, human perception of what the conditions are away from their immediate surroundings.
- Urbanization/commercialization trends.
- Overuse
- Regional infrastructure
- Fuel costs/availability
- Air/water quality
- Invasive plant communities
- Disease/pest outbreaks

2. How will climate variability and climate change modify the current concerns and stresses of the recreation and tourism sector in the region?

- The narrow cost/profit margins and extreme climate-dependency suggest that any adverse climate trends have the potential to drastically affect the sector.
- In some activities of the sector, the present options for alternatives or coping are limited. There is a need to identify cost-effective counter measures and test these out on a case-by-case basis.
- There is a need to "weather-proof" the sector. In some cases this may involve changes in public perception and/or habits. There is a need for all-weather and all-season activity prescriptions for the infrastructure, such as multiple-use facilities. One example given was the access to indoor activities (theater), local traditions (mountain-man lore), and optional outdoor activities (live farm and wildlife animal tours) at ski resorts.
- Climate-induced stresses in the cold and warm weather activities and the direction of impacts are:

  Warm weather

  Generally weather changes would be favorable, but impact on overuse, air/water quality, invasive plant communities, and disease/pest outbreaks would be unfavorable.

  Exceptions to the weather changes being favorable are freshwater fishing and the fall foliage season. The warming of streams could endanger most of the sport fishing population. Warming could cause dulling of the vibrant colors characteristic of the region during fall foliage season, at the very least. It could possibly endanger the species that produce this natural, annual display permanently.

  Cold weather

  Changes to weather, overuse, air/water quality, and disease would have highly unfavorable impacts on these activities.
- The hospitality industry and, to a somewhat lesser extent, the retail industry are strongly impacted by the recreation/tourism industry. The group felt that any impact to tourism would similarly affect these areas.

3. What information and data are needed by the recreation and tourism industry to fully understand and address climate-related issues?

The following four needs were identified:

1. Development of accurate region-level general circulation models.
2. Development of more reliable long-range weather forecasts.
3. Development of reliable 10-20 year climate predictions.

4. Development of reliable early warning systems concerning the potential risk of human disease and pest outbreaks.

4. What types of strategies and approaches are available for coping with, or mitigating, climate change stresses for this sector?

- There was the strong perception that mitigation would prove much more effective than short-term coping strategies. Ultimately, the problem of atmospheric changes will have to be addressed by controls on emissions affecting climate (greenhouse gases) and air quality (ozone, particulates, acidic deposition).
- Stop-gap measures need the attention of both the purveyors and the public but cannot replace or substitute for long-term goals of abating and moderating adverse climate changes.
- There is a need to develop a mechanism and infrastructure for the timely, accurate and easy access to data. It does no good to have wonderful databases of useful information, if the people who have need of these data do not have easy access to them.
- We must create effective programs to educate the hospitality industry. This industry profits the most from the recreation/tourism industry and they need to be made aware that changes in climate that impact unfavorably on tourism will have an unfavorable impact on them as well.
- Hold annual conferences/workshops specifically designed for the recreation and tourism industry to address short-term and long-term issues and actions related to climate change and coping strategies.
- Design tourism publications to educate the public on the issues of climate change, air and water quality protection, and available means of coping, adapting, etc.
- Develop trail systems for non-motorized use.
- Develop community-based, local and regional (i.e., several adjoining towns, etc.) cooperative projects which provide recreational opportunities with multi-seasonal and/or multi-use capabilities. These could draw and accommodate large numbers of visitors in both fair and adverse weather with minimal environmental impact. Some examples include: extensive, non-motorized trail systems for walking, biking, cross-country skiing, etc.; regional arenas or gathering centers available for both indoor and outdoor events (fair, concerts, festivals, etc.).
- Develop strategies for adapting to the change wherever possible, such as smoothing and restructuring ski slopes so less snow is needed to cover the terrain.
- Develop public transportation to the fullest to minimize air quality damage.