



COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE



OUTDOOR RECREATION RESEARCH AND EDUCATION FOR THE 21ST CENTURY:  
DEFINING NATIONAL DIRECTION AND BUILDING CAPACITY





## INTRODUCTION

This Outdoor Recreation<sup>1</sup> Research and Education (ORRE) strategic plan reflects a number of important societal trends. First, according to the latest results from the National Survey on Recreation and the Environment<sup>2</sup>, outdoor recreation participation has increased in the United States. Second, outdoor recreation makes a major contribution to local, regional, national (\$730 billion per year<sup>3</sup>), and global economies. Third, scientific studies suggest that quality outdoor recreation experiences can lead to healthier, active lifestyles for people of all ages. And fourth, with changing demographics and increasing participation, there is a growing challenge to provide and manage sustainable outdoor environments for recreation experiences.

Managers, policymakers, and communities need science-based strategies to address these societal trends. This strategic plan provides national direction for research, education, and outreach programs focused on outdoor recreation. This plan is also designed to enhance the capacity of ORRE programs nationwide and to promote interagency collaboration, leading to more sustainable outdoor environments, recreation experiences, healthier lifestyles, and viable communities.

The ORRE strategic plan contributes to the Strategic Plan<sup>4</sup> of the USDA Cooperative State Research, Education, and Extension Service (CSREES) Strategic Goal 3, Support Increased Economic Opportunities and Improved Quality of Life in Rural America; and Goal 6, Protect and Enhance the Nation's Natural Resource Base and Environment. The plan also complements the McIntire-Stennis Strategic Plan<sup>5</sup> in managing the forest lands for outdoor recreation and USDA Forest Service Strategic Plan: FY2007-2012<sup>6</sup>, Goal 4, Sustain and Enhance Outdoor Recreation Opportunities.

The ORRE strategic planning process engaged a broad range of stakeholders from academic institutions, federal agencies, and outdoor recreation managers. Additional inputs were solicited through roundtable discussions in meetings and conferences. Further information on the planning process is described in Appendix A.

OUTDOOR  
RECREATION  
RESEARCH  
AND EDUCATION

**VISION:**

**SUSTAINABLE OUTDOOR ENVIRONMENTS  
CONNECTING PEOPLE AND NATURE THROUGH  
RECREATION—LEADING TO HEALTHIER  
PEOPLE, RESOURCES, AND COMMUNITIES**

**THEME 1:**

**CONNECTING OUTDOOR RECREATION, HUMAN HEALTH  
AND WELL-BEING**

SCIENTIFIC STUDIES SUGGEST THAT QUALITY OUTDOOR RECREATION EXPERIENCES CAN LEAD TO HEALTHIER, ACTIVE LIFESTYLES FOR PEOPLE OF ALL AGES.

ORRE strengthens the impact of outdoor recreation on human health and well-being by:

**RESEARCH:**

- Supporting longitudinal research studies that identify and monitor health impacts of outdoor recreation for various population groups
- Quantifying and developing reliable and valid measures of health benefits of outdoor recreation
- Explaining the effects of outdoor recreation participation on different physical and emotional health indicators

**EDUCATION:**

- Supporting the integration of outdoor recreation education into K-12 school curricula to promote healthy lifestyles
- Providing outdoor-recreation education through multiple delivery systems to reach diverse audiences

**EXTENSION:**

- Engaging health professions to promote the health benefits of outdoor recreation to the U.S. public
- Translating and disseminating health benefit knowledge to critical audiences, including public officials, government agencies, industry, and citizens
- Expanding community-based youth programs to experience outdoor recreation opportunities
- Targeting youth, family, retirees, urban populations, and people with disabilities for outdoor-recreation experiences
- Supporting the development of science-based performance standards to improve health through outdoor recreation programs



## MISSION

**ADVANCE** knowledge about sustainable outdoor environments, recreation experiences, and healthy communities

**FOSTER** innovative education programs to develop future leaders and engage citizens in sustainable outdoor environments, recreation experiences, and healthy communities

**BUILD** capacity to transfer useable knowledge and communicate impacts about sustainable outdoor environments, recreation experiences, and healthy communities to policymakers, industry, landowners, managers, and communities

## STRATEGIC GOALS

**BUILD** a coordinated research program that is transdisciplinary<sup>7</sup>, multi-scale, theory-driven, and education-based, benefiting science and society

**STRENGTHEN** education and outreach programs that connect people and nature through recreation and support diverse economic opportunities

**SUPPORT** an integrated program of research, education, and outreach, focusing on three thematic areas in this ORRE strategic plan

## THEME 2:

# CREATING SUSTAINABLE AND ACCESSIBLE OUTDOOR RECREATION ENVIRONMENTS

WITH CHANGING DEMOGRAPHICS AND INCREASING PARTICIPATION, THERE IS A GROWING CHALLENGE TO PROVIDE AND MANAGE SUSTAINABLE OUTDOOR ENVIRONMENTS FOR RECREATION EXPERIENCES.

ORRE promotes sustainable and accessible<sup>8</sup> outdoor environments for recreation by:

### RESEARCH:

- Understanding natural resource impacts of outdoor recreation and improving mitigation strategies
- Assessing and designing management strategies to reduce competing uses and user conflicts in outdoor environments
- Developing improved measures of efficiency (e.g., benefit-cost analysis for outdoor recreation programs)
- Examining how land ownership changes affect access to outdoor recreation environments by different populations
- Understanding and monitoring the preferences, expectations, demographics, and behaviors of outdoor recreation participants and non-participants
- Developing and designing management systems to balance the benefits and ecological impacts of outdoor recreation

- Identifying and quantifying the environmental services that outdoor recreation environments provide

### EDUCATION:

- Strengthening university academic programs in outdoor recreation
- Increasing the scientific capacity of outdoor recreation academic programs and social science research through quality graduate education programs
- Recruiting students with diverse backgrounds into graduate programs
- Integrating social sciences into natural resource curricula and resource management position descriptions
- Incorporating the needs of new landowners (e.g., land trusts, conservation organizations, real estate investment groups) into outdoor recreation curricula

- Broadening the level of engagement between outdoor recreation professionals and academic researchers and educators

### EXTENSION:

- Strengthening outreach programs that promote sustainable outdoor environments for recreation experiences
- Engaging community and resource managers to design and deliver quality outdoor recreation outreach programs
- Incorporating new technology in the design and delivery of outreach programs (e.g., eXtension)
- Supporting a collaborative approach to outreach program delivery, and partnering with cooperative extension, public land management R&D units, land trusts, and community-based organizations



## IMPLEMENTATION STRATEGIES

- Promote the ORRE strategic plan to university scientists, educators, and administrators
- Develop multi-state research projects (e.g., assessing benefits of outdoor environments, and longitudinal studies in amenity-led migration and community development)
- Support more inclusive language of outdoor recreation research and education in CSREES formula grants (e.g., McIntire-Stennis, Hatch, Evans-Allen, and Smith-Lever), competitive programs (e.g., National Research Initiative), and Small Business Innovation Research (SBIR) to incorporate ORRE strategic goals
- Establish a national advocacy leadership committee to help implement the ORRE strategic plan
- Support a unified professional advocacy network for ORRE
- Enhance professional identity, communication, coordination, and advocacy among key ORRE constituencies through a deliberative planning process, consulting with key constituency to promote a shared agenda for ORRE
- Utilize the skills and networks of retired professionals to advocate for robust outdoor recreation management and science programs
- Garner the support of the ORRE strategic plan by diverse professional societies; government science, education, and management leaders; and policy makers
- Engage conservation and citizen groups, and recreation and tourism industries to support the ORRE strategic plan

### THEME 3:

## INTEGRATING OUTDOOR RECREATION, RESILIENT, AND VIBRANT COMMUNITIES

OUTDOOR RECREATION MAKES A MAJOR CONTRIBUTION TO LOCAL AND REGIONAL ECONOMIES—NATIONALLY (\$730 BILLION PER YEAR) AND GLOBALLY.

ORRE enhances the impact of integrating outdoor recreation on building resilient and vibrant communities by:

#### RESEARCH:

- Improving quantitative methods in economic modeling to incorporate outdoor recreation benefits to individuals, families, and communities
- Evaluating and addressing social, economic, and environmental changes occurring in selected recreation-based gateway communities through longitudinal studies
- Examining the causes and consequences of amenity-led migration on rural communities
- Enhancing knowledge of the interrelationship between outdoor environments and community development
- Identifying and evaluating adaptive land use, community planning, and management systems that balance economic, social, and ecological attributes

- Assessing how supporting infrastructures (e.g., health-care, technology, airports, etc.) affect amenity-led development
- Analyzing the social, economic, and environmental consequences of the rapidly aging population on both the demand and the supply of outdoor recreation resources

#### EDUCATION:

- Expanding academic recreation workforce training programs, including the community college system, to meet community needs
- Supporting university-led leadership and strategic planning training for community and resource management leaders
- Strengthening professional training opportunities for the outdoor recreation workforce

#### EXTENSION:

- Sponsoring forums that bring together land managers and local leaders to discuss alternative futures for communities
- Communicating the trade-offs of social, economic, and environmental benefits and costs of outdoor recreation to the communities
- Encouraging community partnerships that achieve balance between land stewardship and economic development
- Enhancing recreation and nature-based tourism businesses through workshops and training programs (e.g., entrepreneurship, partnership, and leadership)



## EXPLANATORY NOTES

<sup>1</sup> **Outdoor recreation** is defined as recreation experiences that result from leisure activities that occur in and depend on the natural environment. (Adapted from Moore, R.L. and B.L. Driver, 2005, *Introduction to Outdoor Recreation*, Venture Publishing). This includes nature-based tourism activities (e.g., agritourism and ecotourism.)

<sup>2</sup> Congress mandates the **National Survey on Recreation and the Environment** (NSRE), conducted by the USDA Forest Service. The 8th NSRE ran from September 1999 through February 2004. See Recreation Statistics Update ([www.srs.fs.fed.us/trends/RECUPDATES/recupdate0907.pdf](http://www.srs.fs.fed.us/trends/RECUPDATES/recupdate0907.pdf), accessed on October 2, 2007)

<sup>3</sup> **The Outdoor Industry Foundation**, 2006, *The Active Outdoor Recreation Economy*. ([www.outdoorindustryfoundation.org/pdf/ResearchRecreationEconomy.pdf](http://www.outdoorindustryfoundation.org/pdf/ResearchRecreationEconomy.pdf), accessed on August 7, 2007)

<sup>4</sup> **USDA CSREES Strategic Plan for 2007-2012**  
[www.csrees.usda.gov/about/offices/pdfs/csrees\\_stratic\\_plan.pdf](http://www.csrees.usda.gov/about/offices/pdfs/csrees_stratic_plan.pdf)

<sup>5</sup> **McIntire-Stennis Strategic Plan**  
[www.naufrp.org/pdf/m-s%20plan.pdf](http://www.naufrp.org/pdf/m-s%20plan.pdf)

<sup>6</sup> **USDA Forest Service Strategic Plan: FY2007-2012**  
[www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf](http://www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf)

<sup>7</sup> **Transdisciplinary research** implies an overall coordination of science, education, and innovation towards a specific societal purpose (Pohl C., 2008, From Science to Policy through Transdisciplinary Research, *Environmental Science & Policy*, Vol. 11-1.)

<sup>8</sup> **Accessible** refers to policies and programs designed to encourage the use of outdoor recreation areas and facilities by the public, including individuals with disabilities and with limited financial resources.

## APPENDIX A: ORRE STRATEGIC PLANNING PROCESS

A deliberative and inclusive planning process was followed in developing the ORRE strategic plan. The planning process engaged a diverse set of professional stakeholders nationwide with expertise in outdoor recreation research and education. A national steering committee, comprised of a multidisciplinary cross-section of leaders from academics, agency researchers, and outdoor recreation managers, was convened in May 2007 to provide national guidance in development of the ORRE strategic plan. In addition, other professional networks were engaged in the planning process through roundtable discussions held at several conferences in 2007, including the Northeast Recreation Research Symposium in April, the International Symposium on Society

and Resource Management in June, and the Society of American Foresters in October. At each roundtable, participants identified strategic issues, concerns, and opportunities to be incorporated into the ORRE strategic plan. Transcripts were completed for each roundtable.

In May 2007, the steering committee met for a 2-day workshop in Baltimore, MD, to incorporate all planning inputs into a draft strategic plan, which included an overall vision, mission, strategic goals, thematic areas in research, education, outreach objectives, and implementation strategies for the ORRE strategic plan. The steering committee commented on several iterations of the draft plan and incorporated them into a final strategic plan.

## APPENDIX B: NATIONAL ORRE STEERING COMMITTEE

**Adoum, Djime**  
*USDA-CSREES Planning & Accountability*

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*co-team leader, USDA-CSREES Natural Resources & Environment*

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**Caldwell, Nathan**  
*U.S. Fish and Wildlife Service*

**Deller, Steve**  
*University of Wisconsin*

**Dennis, John**  
*National Park Service*

**Diana, Augusto**  
*National Institutes of Health*

**Falk, James**  
*University of Delaware*

**Gramann, James**  
*Texas A&M University and National Park Service*

**Hallett, Hal**  
*Bureau of Land Management*

**Hoover, Anne**  
*USDA-Forest Service*

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