

Desert Southwest Cooperative Ecosystem Studies Unit

Strategic Plan

Approved November 2016

Introduction

The Desert Southwest Cooperative Ecosystem Studies Unit (DSCESU), founded in 2000, is a partnership among 10 federal agencies, 10 universities, 11 nongovernmental organizations, one state agency, and one county agency. The DSCESU provides a forum for dialogue and a framework for cooperation among federal agencies and nonfederal partners within which common issues can be addressed. The purpose of the DSCESU is to strengthen partnerships among the federal and nonfederal partners in conducting collaborative research, education, and technical assistance projects focused on natural and cultural resource issues with the ultimate goal of improving management of these resources.

Established by a cooperative and joint venture agreement dated October 6, 2000, the DSCESU is part of a nationwide network of biogeographically based CESUs dedicated to research, technical assistance and education in support of resource management efforts. The Desert Southwest biogeographic region comprises portions of five states (Arizona, California, Nevada, New Mexico and Texas) and spans three deserts (the Mojave, Sonoran and Chihuahuan Deserts). Desert ecosystem resource issues are addressed at the local, regional, national and international levels, with emphasis on lands located within the Desert Southwest Region.

The DSCESU is a unique collaboration, bringing together a wealth of technical and scientific knowledge and expertise that will allow for the development of innovative and creative solutions to many of the social and environmental issues that confront our nation's desert ecosystems. This five-year (2015-2020) strategic plan for the DSCESU will guide the general direction and fundamental focus of the DSCESU program.

Partner Institutions

Federal agencies

Bureau of Indian Affairs
 Bureau of Land Management
 Bureau of Reclamation
 Department of Defense
 National Park Service
 U.S. Army Corps of Engineers-Civil Works
 U.S. Fish and Wildlife Service; Southwest Region
 U.S. Forest Service
 U.S. Geological Survey
 USDA Natural Resources Conservation Service

Academic Institutions

University of Arizona (Host University)

Baylor University
 Eastern New Mexico University
 Embry-Riddle Aeronautical University
 Howard University
 New Mexico State University
 Northern Arizona University
 Texas State University
 The University of Texas at San Antonio
 (Universidad de Sonora – Inactive)
 University of California Riverside
 University of Texas at Arlington
 University of Texas at El Paso
 University of Utah

Non-federal non-academic partners

Archaeology Southwest
 Arizona Game and Fish Department
 Arizona- Sonora Desert Museum
 Bird Conservancy of the Rockies
 Cornerstones Community Partnerships
 CyArk
 Desert Botanical Garden
 Hawks Aloft, Inc.
 Organization of American Historians
 Pima County and Pima County Regional Flood Control District
 Rancho Santa Ana Botanic Garden
 Sky Island Alliance
 Sonoran Institute
 The Nature Conservancy
 Western Association of Fish and Wildlife Agencies
 Western National Parks Association

Key issues of the Desert Southwest biogeographic region to focus on during the next five years:

Renewable Natural Resources and Conservation Management

- Conserving biodiversity
- Landscape ecology and maintenance of connectivity
- Restoration ecology
- Sustainable resource production
- Ecological disturbances, especially fire and invasive species

- Sustainable water use and development
- Air quality/pollution and visibility
- Water quality
- Threatened and endangered species
- Development of monitoring protocols
- Sky Islands and landscape change
- Riparian ecosystem resources
- Environmental Flows

Cultural Resources

- Applying traditional ecological knowledge in resource management
- Adobe resource conservation
- Cultural landscape documentation and conservation
- Climate change impacts at archeological sites
- Historic archaeology
- Material science and cultural resource conservation
- Cultural resource planning
- Historic preservation
- Administrative history and archival documentation
- Archival science

Climate Change, Ecosystem Goods and Services, and Education

- Climate change impacts
- Climate smart conservation
- Climate adaptation
- Ecosystem goods and services
- Sustainability
- Benefits of Ecosystems Services
- Human dimensions in public lands management
- Public Outreach and Education

The over-arching theme of our work focuses on the interconnectivity of natural, cultural, and human resources. Our work is concentrated in the key habitats that are threatened or endangered. Specifically: Riparian, Sky Islands, Woodlands, Desert Shrublands, Grasslands, and Water.

Mission and Objectives

Mission

The Desert Southwest Cooperative Ecosystem Studies Unit executes and provides collaborative research, education, and technical assistance addressing desert ecosystem resource issues at local, regional, national, and international levels. The DSCESU partnership establishes

interdisciplinary programs that involve natural resources, cultural resources, and social sciences information, with emphasis on involving communities and under-represented groups.

As stated in the October 2015 DSCESU Cooperative and Joint Venture Agreement, the objectives of the DSCESU are to:

- Provide research, technical assistance and education to federal land management, environmental and research agencies and their potential partners;
- Develop a program of research, technical assistance and education that involves the biological, physical, social, and cultural sciences needed to address resources issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context at the local, regional, and national level; and
- Place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions.

Goals and actions

University, agency, and nongovernmental organization partners of the DSCESU will collaborate to address the key issues of the Desert Southwest biogeographic region. The following strategic goals will guide the actions of the DSCESU until October 2020 when the DSCESU agreement will be up for renewal. These goals complement the DSCESU objectives and provide a vision and framework for a proactive CESU in the Desert Southwest. Specific actions are listed under each goal. The following actions are those that the DSCESU anticipates undertaking during 2015-2020 to meet the goals.

- Establish effective ongoing communication among all partners.
 - all partners share information about their cooperative agreements so that host institution can make accurate reports
 - all partners share their final reports
 - host university develops and maintains website
 - encourage federal partners to conduct an assessment of agency research, technical assistance and education needs and to convey this information as opportunities to the non-federal partners
 - compile and update information on subject matter expertise offered by member academic institutions and make this information available and useful to partner agencies
- Strive for excellence in the development, implementation, and dissemination of research, education, and technical assistance projects.

- maintain a database of completed and in-progress research projects to provide for sharing of research findings and encourage development of new collaborative ventures
- Increase minority-serving institution involvement in projects.
 - link minority-serving institutions with DSCESU agencies
- Facilitate opportunities for student research, education, and internships that are pertinent to the needs of management agencies and to the training of future agency employees.
 - increase opportunities for student involvement
- Maintain an effective and efficient organization.
 - formulate executive committee membership with one representative from each partner institution and agency
 - establish additional ad-hoc committees as needed to address special issues or initiatives
 - follow national roles and responsibilities guidelines regarding CESU operating principles
 - create and implement an annual work plan
 - post information to the web site regarding cooperative agreement financial and administrative procedures specific to each agency or institution
 - follow procedures for host institution to ensure coordination, internal communication, project identification, accomplishment reporting to CESU partners and the national program office, and record keeping.
 - CESU members will assist host institution in annual reporting and record keeping efforts
 - as appropriate, coordinate activities with the national CESU network
- Facilitate application of scientific results to land management by ensuring that results and outcomes of DSCESU projects are made available to CESU partners and others through high visibility outreach programs.
 - develop and implement creative and effective venues for communicating the results of CESU research, technical assistance and education projects to land managers, scientists and others (e.g. information alerts by email, websites, technical and peer-reviewed publications, and through talks and meetings at regional, national and international conferences)
- Provide encouragement for the development and implementation of effective multi-institution and multi-agency collaborations among DSCESU partners to address the key issues.
 - on an ongoing basis, develop mechanisms and explore opportunities for multi-agency collaboration
- Maximize effectiveness of the DSCESU partnership by integrating CESU projects and activities with other scientific programs and collaborations in the Desert Southwest.

- coordinate and integrate CESU projects and activities with other scientific collaborations in the Desert Southwest by ensuring CESU representation in appropriate meetings

Monitoring of Strategic Plan

Each year at the annual DSCESU meeting the Executive Committee (one representative from each partner institution) will assess how well operations are working and how well these plans are being implemented. Changes in operations or the strategic plan will be made as needed. Such changes will take into account performance of the DSCESU relative to the strategic plan and account for the issues and needs arising from the partners.