BIOSPHERE RESERVE COORDINATING COMMITTEE
Minutes of Second Meeting

DRA 8 7

10-12 October 1990
The Virginia Coast Reserve and Biosphere Reserve
Hog Island, Virginia

Members Present: C. Bledsoe, W. Gregg, H. Hinote, O. Loucks, C. Slaughter (for D. Taylor), L. Wayburn, R. Woodmansee

Purpose of Meeting: At its first meeting in March, 1990, the BRCC agreed to hold a series of forums to prepare an Action Plan for U.S. Biosphere Reserves. The MAB National Committee (NC) requested preparation of the plan to provide clear direction for developing the functions of the U.S. biosphere reserve network. In September, the NC awarded the BRCC a $15,000 grant to develop the plan. Hog Island in The Nature Conservancy's Virginia Coast Reserve and Biosphere Reserve provided an ideal setting for the BRCC to begin the planning process. The purpose of the first planning meeting was to develop a problem statement for the biosphere reserve program, and to brainstorm possible program goals and ways to achieve them.

Process: The discussions progressed sequentially through the following stages:

- o Developing a problem statement
- o Brainstorming potential program goals to address the problem
- o Rating the goals
- o Relating the goals to biosphere reserve functions
- o Identifying ways to implement the highest rated goals
- o Identifying some near-term U.S. MAB actions for further development and discussion
- o Identifying enablers, detractors, and users (clients).

Attachment 1 provides the BRCC's recommended problem statement for the U.S. Biosphere Reserve Program, and the suggestions BRCC members brought to the meeting as grist for discussion of program goals.

Attachment 2 summarizes the results of the goal identification, rating, and categorization process.

Attachment 3 lists the results of the brainstorming of potential actions to implement the four highest priority goals.

Attachement 4 lists actions members felt particularly merited further discussion in developing an integrated U.S. MAB program for implementing biosphere reserve functions.

Attachment 5 is a preliminary list of partners that need to be kept in mind in enabling and implementing the Action Plan, and clients with a stake in an effective USBR program. Time ran out on this discussion, which will be continued at the next meeting.

Considerations Raised by Members for Developing the Plan

o A clear mission statement is essential for generating the support of the many people who must be involved in implementing the BR program.

o Conservation is first priority. Biosphere reserves depend fundamentally on protected conservation areas to achieve their multiple objectives.

o In the U.S., biosphere reserve programs will be based on voluntary cooperation, and will rely on the existing legal authorities of the participating entities to achieve their conservation goals.

o Information systems, research, and publication are essential to the credibility of the program.

o A coordinated effort to address problems of regional and global pollution, and the effects of human activities in surrounding areas, should be a distinguising feature of biosphere reserves.

o U.S. biosphere reserves should be leaders in developing the theory and practice of sustainable ecosystem use. Several members supported a strong MAB role in assessing effects of regional and global growth of human populations on resource uses, landscape change, and biological diversity.

o Broad institutional and community participation must be encouraged in planning and implementing BR programs. Members took note of the promising role of regional MAB organzations in facilitating this participation,

o The Action Plan should provide a conceptual framework for developing individual BR programs.

o The plan should encourage a diversity of implementation strategies, and build on the capabilities of existing sites.

o The plan should stress early development of the functions of the most capable sites.

o Funding strategy for cooperative BR programs needs particular attention.

o Increased participation of nongovernmental organizations concerned with conservation and development will be essential.

o Linkages with other programs having a stake in effective biosphere reserves must be strengthened (e.g., Nature Conservancy's "bioreserves" program, The U.S. Global Change Research Program, the NSF's Long-term Ecological Research Program).

Follow-up Actions on the Action Plan:

(1) Mission Statement. Chairman Woodmansee will draft an expanded mission statement for the U.S. Biosphere Reserve program based on the discussions and goals agreed to at Hog Island. He will send the draft to BRCC members before the next meeting.

(2) Policy. Members agreed that participating agencies should consider formulating policies on their role in developing biosphere reserve functions. The National Park Service is believed to be the only agency that has such a policy. Gregg will send members a copy to provide the basis for discussion.

(3) Guidelines. Several members stressed the importance of finalizing US MAB's operational guidelines for implementing the BR program. Draft guidelines developed by the former Biosphere Reserve Directorate focus on the nomination process and the development of cooperative regional MAB organizations. Members agreed that additional guidance is needed to assist managers and others responsible for planning and coordinating biosphere reserve functions, and for reporting and evaluating biosphere reserve activities. Wayburn (lead), Loucks and Gregg will prepare a draft guideline section covering these topics for review at the next meeting.

(4) Preproposals. Committee members will prepare preproposals for review at the next meeting on proposed integrating projects on on landscape change (Woodmansee (lead)), and ecological indicators of global change (Bledsoe (lead)).

(5) Input from Directorates. To stimulate exchange of ideas between the Directorates and the BRCC, Bob Woodmansee will present the planning process and the BRCC's preliminary recommendations at the next meeting of the Directorates on December 17. The discussions will enable the Directorates to focus attention on the role of biosphere reserves in planning their FY 1991 programs, and enable Directorate views to be considered in developing the Action Plan.

Other BRCC Decisions and Recommendations

(1) Briefing for Congressional Staff. Hinote described the increasing Congressional interest in the Southern Appalachian Biosphere Reserve Program, and noted SAMAB's intent to brief the region's congressional staff in the near future. He suggested that the BRCC consider expanding the scope to the U.S. BR program, holding a briefing in Washington, and inviting key representatives and staff concerned with issues relevant to BR. The discussion raised questions regarding the appropriate timing of the briefing, the development of materials, and coordination; and the possibility of arranging for legislators and their staffs to visit selected BR's. Hinote (lead), Wayburn, Gregg, and Woodmansee will prepare a proposal to povide the basis for further USMAB discussion.

(2) Land Between The Lakes Area Biosphere Reserve Nomination. USMAB nominated the Land Between the Lakes Area Biosphere Reserve in January 1990. The UNESCO MAB Bureau deferred action on the nomination. The Bureau questioned the rationale for including two satellite riparian wildlife refuges in view of the biosphere reserve's primary emphasis on understanding the ecosystem and landscape dynamics of reservoirs. The Bureau also requested additional information on the BR organization. Gregg reported that site administrators had decided to delete the refuge sites. The revised boundary, including transition areas, would encompass an integrated landscape containing the Tennessee Valley Authority's Land Between the Lakes, the two adjacent reservoirs, and the watersheds of the tributary streams of the reservoirs. Noting prior U.S. MAB approval of the nomination, the Committee recommended that the Tennessee Valley Authority make the necessary technical revisions to the nomination form and submit the nomination as soon as possible to the U.S. MAB Secretariat for transmittal to UNESCO.

(3) Feasibility Assessment for the Central California Coast Biosphere Reserve.

The Committee briefly discussed the feasibility assessment prepared by the Point Reyes Bird Observatory to develop recommendations for organizing and developing the functions of the Central California Coast Biosphere Reserve. The assessment documents substantial institutional interest and involvement in planning the BR, and recommends the establishment of a non-profit organization to coordinate program planning and implementation, and the participation of many governmental and nongovernmental entities with a potential stake in the program. The Committee noted that development of a successful program will depend on the enthusiastic participation of management and program agencies. As several of these agencies are members of the National MAB Committee, the BRCC recommended that the Secretariat invite interested National Committee members to review the assessment. In particular, any legal obstacles to agency participation in the proposed organization need to be identified and addressed prior to the National Committee's approval of the assessment.

Next meeting. The next meeting of the BRCC will be held at the National Park Service's Mather Training Center in Harpers Ferry, West Virginia, on 7-8 January 1991, immediately prior to the next National Committee meeting on 9 January. Emphasis will be on involving management and program agencies in the planning process, many of which were not represented at the Hog Island. The BRCC noted the importance of participation by biosphere reserve managers, and requested the Secretary to arrange the participation of managers from National Park Service and Forest Service biosphere reserve sites. The BRCC also asked the Secretary to invite participation by Conservation International which has made made the planning and implementation of biosphere reserves a central focus of their program.

The Committee ended the meeting with a vote of appreciation to Orie Loucks and Greg Lowe for arranging the use of The Nature Conservancy's Hog Island facility; to John Hall, Director of the Virginia Coast Reserve for communicating his valuable practical experience in implementing a regional biosphere reserve, and to facility caretakers Jackie and Charlie Farlow for their warm hospitality and good conversation.

ATTACHMENT 1

PROBLEM STATEMENT FOR U.S. BIOSPHERE RESERVE PROGRAM

To articulate and implement a program of sustainable conservation and development in U.S. biosphere Reserves

STATEMENTS PROVIDED BY BRCC MEMBERS AND INVITED PARTICIPANTS TO FACILITATE DISCUSSION OF PROGRAM GOALS

To foster an active program of research and public education at U.S. biosphere reserves. (NSF: Bledsoe)

To develop knowledge, skills, and attitudes required to maintain and restore natural ecosystem processes and the indigenous genetic resources of representative biogeocultural areas within the context of sustainable types and patterns of human uses, and to promote the use of U.S. biosphere reserves for regional and international cooperation in conducting ecological research and public education, and demonstrating methodologies for resolving interrelated environmental, ecosystem use, and socioeconomic problems affecting natural areas and biological diversity. (NPS: Gregg)

To foster harmonious relationships between humans and their environment through programs and projects that integrate the social, physical, and biological sciences to address actual problems. These programs and projects are aimed towards: (1) conservation of genetic materials, (2) providing scientific knowledge to support sustainable development; (3) demonstrating sustainable use of landscapes; (4) encouraging education and training in resource and environmental management; and (5) involving local people in their management. (SAMAB: Hinote)

To provide both an intellectual and physical basis for interdisciplinary research and the resolution of natural resource management issues. (FS: Krugman)

Local level: To foster the identification, nomination, and selection of biocultural regions as MAB Reserves and the necessary research and public education to provide for effective community management of the reserve. National/global level: To foster national and international networking necessary to share scientific and managerial data, to promote global public environment education, and to demonstrate appropriate ecological, cultural and economic uses of MAB reserve resources worldwide. (Ohio State U.: G.Mullins)

Biosphere reserves should conserve representative and functionally important natural ecosystems. These reserves should be designed so as to help evaluate the impact of man on the systems. Although not statistically distributed, biosphere reserves should be incorporated into many different agency measurement programs and provide a broad range of identifiable "baseline" measurements of environmentally important variables. (EPA: Slimak)

To fulfill the role of biosphere reserves as an original concept in protected area design and management through integrated sustainable development and conservation practices. To demonstrate the utility and feasibility of an eco-regional approach to conservation and management of resources based on a long-term program of science applied to action and management needs. To fulfill the unique [biosphere reserve] role as an integrating framework for regional resource management and conservation with broad integrated community participation and support. (Coastal/Marine Directorate: Wayburn)

ATTACHMENT 2

BIOSPHERE RESERVE PROGRAM GOALS, RELATED BIOSPHERE RESERVE FUNCTIONS, AND RATING SCORES 1/

BRCC members recommended the following integrating goals for the U.S. biosphere reserve (USBR) program:

Utilize USBR as ecosystems to increase preservation of biodiversity B (60; 7-9)
Conduct research for sustainable conservation and development in USBR R (58; 7-9)
Promote education for sustainable conservation and development E (55, 5-9)
Facilitate involvement of others in USBR activities (e.g., local communities, non-governmental organizations, environmental education groups) C,I (54, 7-9)

The BRCC identified the following additional goals, listed in order of rating scores :

Create regional cooperative institutional frameworks for sustainable conservation and development C,I (49, 2-9)
Develop public-private partnerships for USBR I (49, 4-9)
Focus on problem-solving relating to sustainable conservation and development R (48, 1-9)
Incorporate socioeconomic context and trends C,E (48, 5-8)
Develop multiinstitutional cooperation and collaboration in USBR I (45, 4-8)
Implement international programs involving USBR G (44, 1-9)
Evaluate the significance of symbolism and "spirit of place" C,R (43, 2-8)
Develop a marketing plan for USBR E (43, 1-9)
Develop a credible reporting structure for USBR E (41, 1-8)

Create the means for international collaboration G (39, 1-7)
Inmplement a creditable evaluation system for USBR I (39, 1-8)
Incorporate diverse cultural value systems C,R (38, 2-7)
Articulate a conceptual overview of sustainable conservation and development R (38, 1-9)
Incorporate natural processes of change R (36, 2-7)
Fulfill the mandate for a representative USBR system B (32, 1-8)

1/ Letter codes reflect biosphere reserve functions relevant to the goal, as follows:
B: Biodiversity Conservation; C: Community Relations
E: Education; G: Global/International Linkages;
I: Institution Building; P: Public Relations; R: Research

Scores in parentheses are totals of points given by the 7 participating BRCC members, on a scale of 1-9, 9 high (maximum possible score: 63), followed by range in individual scores,

ATTACHMENT 3

UNPRIORITIZED LIST OF POTENTIAL IMPLEMENTING ACTIONS

GOAL: Utilize USBR as ecosystems to increase preservation of biodiversity

IMPLEMENTING ACTIONS:

Establish standards for characterizing biological diversity in USBR

Develop guidelines for quantifying ecosystem integrity in USBR

Construct a common-format GIS for USBR

Prepare a case study of a USBR success in facilitating/contributing to conservation of biological diversity

Contrast biological diversity in core, buffer, and transition areas of selected USBR

Articulate the role of USBR in advancing restoration ecology and the role of restoration ecology in conserving biological diversity in USBR

Develop an ethnobiological database for USBR

Assess the role of cultural practices/traditional uses on biological diversity in USBR

GOAL: Conduct research for sustainable conservation and development in USBR

IMPLEMENTING ACTIONS:

Implement a pilot project on landscape change (i.e., evolving relationships of human culture, human uses, and landscape)

Design a mega-landscape experiment in conservation biology

Assess the symbolic significance of landscapes/protected areas as "places of spirit", and the relationship to conservation/ development

Monitor selected ecological indicators of global change

Conduct parallel assessments of socioeconomic change

Contrast habitat use and impacts of humans versus selected animal species

Conduct a case study of the ecological and economic benefit of a USBR

GOAL: Promote education for sustainable conservation and development

IMPLEMENTING ACTIONS:

Develop a strategy for presenting USBR accomplishments in the thinking media

Prepare a color brochure for USBR program

Make a documentary (video) on USBR

Develop a museum exhibit on coevolution of people and a regional USBR landscape

Prepare information summaries on BR using data from the UNESCO international survey

Prepare a USBR personnel directory

Develop linkages with regional and national environmental education organizations

Develop a program to involve secondary school students in monitoring ecological indicators in USBR

Implement grammar school educational exchanges involving paired BR

Determine factors in success of USBR education programs

GOAL: Facilitate involvement of others in USBR activities

IMPLEMENTING ACTIONS:

Evaluate the status of mechanisms for regional cooperation

Prepare case studies of successful local and regional institutional cooperation

Evaluate the risks and successes of public-private partnerships

Develop tools and incentives for community involvement, public/private partnerships, and regional cooperative institutional frameworks

Invite formal participation of selected complementary institutions in USBR

Implement a pilot community volunteer program in BR stewardship

Prepare a case history on the value of ecotourism

ATTACHMENT 4

POSSIBLE COMPONENTS OF AN INTEGRATED U.S. MAB ACTION PROGRAM FOR NEAR-TERM IMPLEMENTATION 1/

The BRCC recommended the following actions for priority consideration in FY 1991:

Complete development of Action Plan including USBR mission statement, program goals, and action items

Prepare a color brochure for USBR program describing the USBR network, highlighting successes, and documenting the programs of a few "stellar" sites

Publish a personnel directory of USBR managers and specialists

Prepare operational guidelines for BR, including BR characteristics, selection criteria, management, coordination, evaluation, reporting of activities, and agency policy statements on BR

Develop a plan for informing Federal and state congressional delegations on USBR

Initiate and coordinate a pilot research project on landscape history and change to provide BRs with a historical context for current land use patterns and to link BRs in a national GIS database (TE, HI, HU)

Initiate and coordinate a monitoring program on assessment of ecological indicators of global change ugilizing a network of BR (CO, HI, TE)

The BRCC identified the following additional actions for near-term consideration in achieving the integrating goals:

Assessments of socioeconomic change (CO, TE)

Participation of selected complementary institutions (CO, TE)

Pilot community volunteer program for BR

Common-format GIS (CO, HU, TE)

Cultural practices/biological diversity assessment (HI)

Strategy for presentation to the thinking media

Secondary school program for monitoring ecological indicators

Museum exhibit on coevolution of people/regional landscape

1/ Codes in parentheses refer to stated interests of USMAB Directorates in the type of activity. The BRCC identified these linkages to encourage further discussion in planning Directorate programs. CO: Coastal and Marine Ecosystems. HI: High Latitude Ecosystem. HU: Human-dominated Ecosystems. TE: Temperate Ecosystems.

ATTACHMENT 5

POTENTIAL CONSTITUENCIES FOR THE ACTION PLAN

ENABLERS

Agency representatives on National MAB Committee
U.S. MAB Directorates
Biosphere Reserve Coordinating Committee
Biosphere reserve managers
Agency program managers
Regional MAB organizations
Nongovernmental organizations
Congressional leaders

CLIENTS

Local/Regional Users
- Agency program managers (federal, state, local)
- Agency researchers (federal, state, local)
- Agency extension agents (federal, state)
- Agency outreach (federal, state, local)
- Biosphere reserve managers
- Regional resource and planning agencies
- Regional commissions
- Conservation organizations
- Community organizations
- Cultural organizations
- Economic development organizations
- Environmental education organizations
- Educational leaders
- University researchers

National Users
- Federal agency policy makers
- Congressional policy makers
- Federal program managers
- Interagency committees (e.g., Committee on Earth and Environmental Sciences, Global Change Working Group)
- Professional organizations
- Conservation organizations
- Development organizations
- Tourist associations
- Media