



# BULLETIN

VOLUME 11, NUMBER 2  
July 1987

## REPORT FROM THE EXECUTIVE DIRECTOR:

As noted elsewhere in this issue, the U.S. National Committee took decisive action to strengthen U.S. MAB by focusing the research program on four integrative themes, and by encouraging greater participation and funding by supporting Federal agencies. The Committee decided that the U.S. Program should place priority emphasis during FY 1988 on reviewing U.S. MAB's research experience and developing the scientific theory of, and methods to implement, the new research themes:

- Management and Restoration of Human Impacted Ecosystems;
- Human Investment and Resource Use;
- Human Response to Environmental Stress; and
- Ecosystem Functioning under Different Intensities of Human Impact.

The Committee discussed various measures for implementing this review and decided to seek to support symposia on the themes at the annual meetings of various professional and scientific societies such as AAAS, AIBS, etc. The Committee believes this strategy will help increase MAB's interactions with broader elements of the scientific community and also reflect the inter- and trans-disciplinary nature of MAB.

The Committee also sent two delegates, Dr. Michael Little of the National Committee, and Orle Loucks, who served on the International MAB General Scientific Advisory Panel, to a Federal Republic of Germany meeting, in mid-June, of Western European and North American National Committee representatives. A report of their discussions will appear in the next Bulletin.

Two other actions deserve special mention: (1) the Committee approved the allocation of \$94,000 to support a research project on Comparative Process Measurements, Modeling and Application Synthesis on U.S. and China Broadleaf  
(Continued on Page 4)

## INDEPENDENT AD HOC GROUP REVIEWS U.S. MAB PROGRAM, MAKES RECOMMENDATIONS...

A study of the U.S. Man and the Biosphere Program was conducted over the past half year at the request of the U.S. Department of State. The independent ad hoc advisory group which was chaired by Peter Thacher, World Resources Institute, included Robert McC. Adams, Smithsonian Institution; Christian Herter, Jr., John Hopkins University; Thomas Lovejoy, World Wildlife Fund; David Thorud, University of Washington; and Gilbert White, University of Colorado. The group considered: ● the positive relationship of MAB to U.S. domestic and international interests in natural resource management issues; ● the hope that MAB holds toward a cost-effective way to improve natural resource management, especially in predominantly tropical developing countries; and, ● the continuing interest of the State Department in exercising leadership in improving MAB's performance.

The group recommended:

- U.S. MAB's focusing on high priority issues rather than a broad array of projects, with the National Committee taking more leadership in setting national priorities;
- the development of a more precise annual planning and peer review process with regard to increasing/allocating Program funds;
- the implementation of stronger leadership roles for the National Committee and the Secretariat while not endangering the voluntary participation at the working level of U.S. MAB; and

- the continued support of basic Directorate operations, and the provision of limited flexible funding for quick response to targets of opportunity.

Further, the ad hoc group recommended that the organization of U.S. MAB be reviewed. Reorganization would be effected to achieve stated goals, to consider new directions emerging from the international program (as well as new goals defined by a new National Committee), and to remove any perceptions, rightly or wrongly, that U.S. MAB is a "closed" system in which the appearance of conflict of interest in funding decisions prevails. A reorganized program, they suggested, should provide mechanisms for increasing the participation of scientists and scholars. Copies of the full report may be obtained by writing to the U.S. MAB Secretariat.

...AND THE U.S. NATIONAL COMMITTEE SETS NEW PROGRAM DIRECTIONS:

The National Committee agreed that the recommendations of the ad hoc group would have a positive effect on the United States MAB Program, and they prepared a statement setting forth parameters for implementation of specific suggestions. It was adopted on May 19, 1986 by the National Committee, as follows:

1. U.S. MAB should be directed to develop an annual planning process that emphasizes and supports priority areas with greater resources. These areas of program emphasis should be appropriately and publicly announced, and U.S. MAB support for projects in these priority areas should be selected on a competitive basis using reviewers from outside the MAB National Committee.
2. The State Department and supporting Federal agencies should actively seek to increase the total resources available for the Program.
3. We recommend the basic Directorate structure be maintained, encouraged and supported. To provide for rotation of Directorate members, the appointments should be for 3-year terms and be confirmed by the National Committee.
4. Inter-Directorate activities and projects, especially in support of the new international research directions of MAB, should be encouraged. To facilitate these inter-directorate activities and communications, a committee of Directorate Chairmen, which would meet with the National Committee at least once a year, should be created. Directorate Chairmen should not be members of the National Committee. When making final project allocation decisions, the National Committee should go into executive session.
5. To broaden perspectives on the National Committee, the State Department, in concert with the other supporting Federal agencies, ought to expand the membership on the U.S. National Committee to include non-agency representatives who are not members of MAB Directorates. We recommend that a minimum of one-third of the National Committee members come from outside Federal agencies, and that these Committee members be appointed to serve for a fixed period of four years.
6. Supporting Federal agencies should appoint formally representatives to the U.S. National Committee. We suggest agencies appoint representatives to serve a period of two years, with reappointment a matter of agency prerogative.
7. In a more focused U.S. MAB national Program, the Department of State and other agencies should strengthen the Secretariat staff by assigning additional professional officers to support specific program areas.
8. The National Committee and Secretariat should have some discretionary funds made available for unanticipated needs to be able to respond quickly with small amounts of funds to support targets of opportunity.

9. We recommend that the Department of State and other Federal agencies take appropriate steps to assure that U.S. MAB is properly linked with complementary domestic and international science programs.

Adopted by the United States National Committee for the Man and the Biosphere Program, May 19, 1987.

MAB/NOAA OCEAN WILDERNESS SEMINAR:

The U.S. National Oceanic and Atmospheric Administration, a funding co-sponsor of the U.S. MAB Program, will host a seminar on Ocean Wilderness, September 14-18, at the Fourth World Wilderness Congress, Denver and Estes Park, Colorado, September 11-18, 1987. The seminar will be chaired by Dr. Nancy Foster, National Marine Fisheries Service, and MAB Directorate member, and will include representatives of government agencies and environmental organizations from Europe, Southeast Asia, the Caribbean, Canada, and the United States.

Objectives of the Ocean Wilderness Seminar include: considering the relationship between the traditional concept of wilderness (i.e. terrestrial), "ocean wilderness," and integrated marine conservation strategies; using examples of ongoing regional planning efforts for polar marine areas to highlight the economic, geopolitical, and social factors involved in the formulation and endorsement of integrated marine conservation strategies; using the example of small island developing nations to illustrate how nations and regions are taking a more systematic approach to the management and conservation of their territorial waters.

Other objectives will be to consider the implications of ocean wilderness for the North Pacific from different perspectives including the scientific (i.e. ecosystem), legal, and resource management perspective; and, to examine the role of the public, interest groups, and institutions in changing our approach to managing and conserving ocean areas.

In cooperation with the International Marine Protected Area Network, NOAA will also hold a 2-day course on Interpretive Techniques for Marine Protected Areas, September 9 and 10, in Denver. This course will be one of a number of training opportunities preceding the Congress between August 9 and September 10, 1987. Other courses are: (1) Short Course in Agroforestry, Aug. 9-22; (2) International Seminar on National Parks and Other Protected Areas, Aug. 11-Sept. 8; (3) One Year of University Study (CSU College of Forestry and Natural Resources) Aug. 20, 1987-May 20, 1988; (4) Wilderness Management Workshop, Aug. 31-Sept. 4; (5) Geographic Information Systems Workshop, Aug. 31-Sept. 4; (6) Visual Resource Management Workshop, Sept. 8-10; (7) Interpretive Techniques for Offshore Marine Protected Areas, Sept. 9-10 (mentioned above); and (8) Issues in International Ornithology, Sept. 10.

Further information can be obtained by returning the response card at the right to:

The Fourth World Wilderness Congress  
Internat'l. Wilderness Leadership Foundation  
Colorado State Univ.  
Ft. Collins, CO USA 80523

**Response Card**

- I am Interested In Worldwide Conservation. Please keep me on the mailing list.
- I plan to attend the 4th World Wilderness Congress. Please send registration materials and information on:
- Pre- and Post-Congress tours;
- Pre-Congress Educational Opportunities - circle specific course number(s)  
1 2 3 4 5 6 7 8.
- I would like to give a tax-deductible contribution to Worldwide Conservation. Please send information.

Send another brochure to:

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: Copies of The MARINE CONNECTION, the joint newsletter of the International Marine  
: Protected Area Network and the Ocean Symposium of the 4th World Wilderness Congress,  
: are available from the U.S. MAB Secretariat.  
: .....

REPORT FROM THE EXECUTIVE DIRECTOR (Continued from Page 1):

Biosphere Reserves; (2) the Committee also recommended this proposal for peer review by the UNESCO/MAB Secretariat for consideration as an International MAB Research Project. Other funding allocations will be announced in the next Bulletin.

Finally, to increase resources available for MAB research projects, the Committee discussed mutual interests with Drs. Brian Rosborough, President, and Twig Johnson, Research Director, of EARTHWATCH--a private organization which supports scholars to preserve the world's endangered habitats and species, to explore the heritage of its peoples, and to promote world health and international cooperation. As an interim step to future collaboration, the Committee encouraged U.S. MAB Directorates to submit projects to EARTHWATCH to seek MAB/EARTHWATCH joint resources for field research projects.

I believe these actions demonstrate a vitality in the U.S. MAB Program and a capability to meet new challenges. The Secretariat will seek to recruit new public agencies and private organizations to support U.S. MAB, and to increase the involvement and support of our traditional supporting agencies. The forthcoming year should continue to build upon and increase our upward momentum.

Roger E. Soles, Executive Director

ARCTIC, CARIBBEAN ISLANDS, AND GRAZING LANDS DIRECTORATES MEET IN MAY:

ARCTIC ECOSYSTEMS: Dr. Charles Slaughter convened the MAB-6 Directorate in Fairbanks, Alaska, to discuss MAB-6 projects the Directorate would submit for FY-87 funding. Of the proposals submitted, two were selected during the review committee process conducted by scientists who represent U.S. MAB supporting agencies:

- Publication of the proceedings of a UNESCO/MAB International Conference on Arctic Science Policy and Development.

The proceedings are being edited and will be published later this year.

- Analysis of Taiga/Tundra Ecotones in Relation to Global Climatic Change in Alaska.

One of the aims of the International Geosphere-Biosphere Programme (IGBP) is the recovery and interpretation of environmental history. Global indicators of climatic trends include glacier extent, surface ocean temperature, atmospheric CO content, vegetation zones, lake levels, and soil types. In northern ecosystems probably the most sensitive indicators of climatic change, both past and present, are treelines. Inevitably, reconstruction of circumpolar climatic change will be dependent to a large extent on the in-depth study of treeline dynamics. Therefore, it is especially timely that this study be undertaken in preparation for more detailed IGBP studies in the future.

CARIBBEAN ISLAND ECOSYSTEMS: Mr. William S. Beller, Chairman, met with the MAB-7 Directorate in Puerto Rico, where members of the group discussed, and took steps to advance, the progress of:

- Several long-term Directorate projects involving coastal erosion and solid wastes/marine pollution in the Caribbean;
- A potential training program involving Environmental/Resource Management in the Caribbean; and
- Possible future cooperation among three other U.S. MAB Directorates in the area of Biosphere Reserves.

Members also discussed the role of scientific and Engineering Societies in

Caribbean Development; the need for good exhibits (and possible use of MAB's "Ecology in Action" exhibit) for the new science museum being built by the city of Bayamon, Puerto Rico; a proposed MAB/NOAA/ECLAC workshop/handbook on Managing Marine Protected Areas for Sustainable Development for Caribbean Island Nations; the progress of two publications, Transactions and Proceedings, now being developed as a result of the Interoceanic Workshop held last year by the Directorate; a proposal which seeks to establish a consortium of Caribbean universities which would train Caribbeans in the Caribbean in matters of environmental and resource management in the Caribbean; an upcoming ECLAC co-sponsored workshop on small island developing countries; and the preparation of a new brochure for public distribution which sets forth the Directorate's goals, methods, and accomplishments.

GRAZING LANDS DIRECTORATE: MAB-7 met with Chairman Dr. Henry Pearson in New Orleans, where the principal discussion centered around a major planning workshop on the impacts of forest conversion to pastures in tropical America. Titled Forestry, Livestock, and People: Integrated Production Systems for Tropical America, the workshop will take place, in Central America or in Mexico, in May next year. It will be a joint project with MAB-7 and the U.S. MAB Directorate on Tropical Forests, MAB-1.

Background information: Deforestation is a major cause of soil degradation, erosion, and sedimentation in many countries as forests are cleared for grazing, cultivation, new farms, fuel wood or logging. The causes of forest conversion are complex, yet the result is a common global problem of tropical forest areas being reduced by as much as 10 million hectares each year. Today's land and wood shortages force many farmers to clear marginal lands which formerly would have been left protected by trees or brush. As remote forested areas are cleared, unique species of plants or animals may be destroyed, thus losing whatever special contribution these organisms might have made to mankind in terms of medicinals, resins, secondary chemicals, and fiber. Proper management of these human-impacted resources is imperative in order to maintain sustainable livelihoods for local, regional, and national economies.

The workshop will present state-of-the-art analyses on the socioeconomic aspects, the biological/ecological parameters of forest conversion, and a discussion of alternative integrated systems. Policy analysis and international linkages will be developed to facilitate communication of follow-up activities.

Considerable attention has recently focused on the dangers of destroying the world's forests and their wildlife, particularly in the humid tropics. Increased ecological understanding of tropical forests could guide more effective management. Much of the research to date has been fragmented, often with conflicting results.

#### ENVIRONMENTAL INFORMATION FROM OTHER COUNTRIES:

##### MAB/JAPAN:

U.S. MAB has received a copy of the 1986-1987 Researches Related to the UNESCO's Man and the Biosphere Programme in Japan. It contains brief articles on 13 of MAB/Japan's overseas project activities and 43 articles on its domestic projects. We would be happy to send you a photocopy of the Table of Contents of this booklet. If you then desire a copy of one, or several, of the studies, please send us a MAILING LABEL WITH YOUR RETURN ADDRESS and we will forward the article(s) to you. We cannot promise "return mail" service because of staff limitations, but will do our best. Send your request, with RETURN LABEL to:

Ms. Mae Pickett  
MAB Secretariat  
OES/ENR/MAB  
U.S. Dept. of State  
Washington, D.C. 20520

LANDS DIRECTORATE, ENVIRONMENT CANADA:

Canada's Lands Directorate's mandate is to promote the wise use and sound management of the nation's land resources. Major programs related to that mandate include federal policy on land use, federal land management, issues research, land and the economy, federal program impact, planning support, land inventories and research, ecological land research programs, and land data system services.

To receive a copy of LAND, the Lands Directorate's prize-winning newsletter, write to: Lands Directorate; Environment Canada; Ottawa, Ontario K1A 0E7, and ask for the Lands Directorate Client Information Sheet, which they request you fill in. Their telephone number is (819) 997-2470. Lands Directorate also compiles Lands Directorate Publications--in the English and French languages. It is available from the above address

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PUBLICATION POLICY ESTABLISHED FOR U.S. MAB PUBLICATIONS:

In the interest of promoting efficiency and providing a fair peer review process, a brief statement setting forth formal guidelines for publishing U.S. MAB work was adopted by the U.S. National Committee on May 19, 1987. The publication policy follows:

1. The U.S. National Committee for the Man and the Biosphere Program (MAB) will allocate funds to support the publication of manuscripts submitted through the U.S. MAB Directorates. Priority will be given to manuscripts resulting from U.S. MAB grants and activities.
2. Funds will be allocated for publication after the manuscripts have been peer reviewed by no less than four knowledgeable persons whose names will remain anonymous to the authors. The reviewers will represent the disciplines covered in the manuscript. These reviewers will be selected by the U.S. MAB Secretariat with the consent of the Chairman of the U.S. National Committee.
3. Authors should obtain a copy of Guidelines for the Preparation of U.S. MAB Manuscripts before they submit manuscripts to initiate the review and publication process.
4. In cooperation with the submitting author(s), the U.S. MAB Secretariat may provide appropriate editing, graphic art and other publication production services.
5. Authors of manuscripts will be furnished with copies of all comments received from the reviewers prior to the final manuscript preparation.
6. Covers of U.S. MAB publications will bear the logos of the U.S. MAB Program and the publishing agency. The publication will acknowledge the support of all U.S. MAB participating agencies and appropriate sponsors, and will state that the views and opinions expressed are not necessarily those of the participating agencies.
7. The Secretariat will arrange for the publication's inclusion in the National Technical Information Service (NTIS) and other relevant registration systems.
8. The number of copies of a MAB publication will be determined by the Secretariat in collaboration with the authors and other relevant authorities. The distribution of copies will be a function of the U.S. MAB Secretariat.
9. The U.S. National Committee may endorse or allocate funds to support the production of a publication outside the cooperating federal agencies. The publication will acknowledge the U.S. MAB support. The Secretariat will ensure that an appropriate number of copies are provided for distribution by U.S. MAB.

Please note that Guidelines for the Preparation of U.S. MAB Manuscripts (Item 3, above) may be obtained by sending a self-addressed mailing label to Phylis N. Rubin, MAB Program Officer, MAB Secretariat, OES/ENR/MAB, United States Department of State, Washington, D.C. 20520.

#### FREE PUBLICATIONS:

The following publications are available in limited supply. Check those you desire and send order form with a SELF-ADDRESSED MAILING LABEL to: Editor, MAB BULLETIN, OES/ENR/MAB, U.S. Department of State, Washington, D.C. 20520. Every effort will be made to fill orders quickly although we are very short-staffed in the Secretariat. DO NOT FORGET TO ENCLOSE YOUR MAILING LABEL!

- Connect: UNESCO-UNEP Environmental Education Newsletter: Micro-Environments for Environmental Education
- Connect: UNESCO-UNEP Environmental Education Newsletter: Environmental Education and the Rational Use of Natural Resources
- Potentials of Noncommercial Forest Biomass for Energy (Editors: Peter F. Ffolliott and Wayne T. Swank)
- PARK SCIENCE: a resource management bulletin (Spring 1987 issue)
- InfomAB No. 7 - January-March 1987. A Unesco/MAB publication. (Contains news from MAB Committees, and items on urban systems, arid and semi-arid zones, conservation, tropical forests; on highlands, islands and coastal areas, and on the ninth session of the MAB Council)
- Back copy No. 5 of InfomAB
- Unesco/MAB Programme Publications Catalogue

We now have a limited number of several older publications as listed below:

- Unesco Final Report No. 59: Programme on Man and the Biosphere - General Scientific Advisory Panel (established in cooperation with ICSU)
- U.S. MAB Report No. 9. Vol. 1. Glacier National Park Biosphere Reserve: A History of Scientific Studies. A narrative description of scientific studies, and Vol. 2, Glacier National Park Biosphere Reserve: A History of Scientific Studies. Bibliography, subject annotations, tabular data summaries and appendices
- The final issue of PARKS which featured the Man and the Biosphere Program's Biosphere Reserves

#### COLLABORATION BETWEEN U.S. MAB AND MEXICO CONTINUES:

MAB-2 Chairman Dr. Peter F. Ffolliott headed a U.S. group which visited Baja California Sur, June 3 to 6, at the invitation of the Center of Biological Investigations. The Mexican Government and the staff of this recently established Center--a number of whom have been connected with Mexico's Institute of Ecology--are interested in developing ideas and exploring possible areas for cooperative U.S./Mexico studies in the Sierra de la Laguna. They also want to develop a proposal for submission to UNESCO/MAB to establish the 50,000 hectare Sierra de la Laguna as a Mexican Biosphere Reserve.

Dr. Ffolliott and his colleagues surveyed the site which has a core area of oak- and pine-covered mountains over 2,000 meters--the highest elevation in Baja California Sur--and the surrounding "buffer zone" of very sparsely populated arid grazingland. They answered questions regarding the hydrologic implications of this area and its importance as a water supply. Heavy precipitation in the mountains in the Sierra de la Laguna results from storms coming in off the Pacific Ocean and provides groundwater reserves in Baja. The Mexico government is interested in

preserving, and preventing the deterioration of, this least populated region in Baja California.

THE INTERNATIONAL GEOSPHERE-BIOSPHERE PROGRAM: A STUDY IN GLOBAL CHANGE:

The International Geosphere-Biosphere Program (IGBP) will be a decade-long, fundamental research project to be launched in the early 1990s to...

describe and understand the interactive physical, chemical, and biological processes that regulate the total earth system, the unique environment that it provides for life, the changes that are occurring in that system, and the manner by which these changes are influenced by human actions.

The IGBP will provide the information needed to assess the future of the earth in the next 100 years. Its research program will have practical applications in the management of resources at the national and international levels, and act as a means of improving the reliability of warnings of global change of significance to our lives and environment. This will be made possible by the development of space-based remote sensors which will gather data on a global scale, and the development of "super computers" which hold the potential of computing and analyzing this huge collection of data in interactive models.

The International Council of Scientific Unions (ICSU) has approved the IGBP as a program to be developed, and has established a special committee, headed by Professor J. McCarthy, Harvard University, to guide its development.

The U.S. National Academy of Sciences has formed a U.S. National Committee for the Geosphere-Biosphere Program to provide leadership by U.S. scientists on global change. A former member of the U.S. MAB Directorate on Temperate Forests (MAB-2), Dr. Hal Mooney, Stanford University, was chosen to head this Committee on Global Change. Also serving on this important Committee are other MAB-involved individuals, Drs. Thomas Malone, now at St. Joseph College in West Hartford, and Paul G. Risser, University of New Mexico, Albuquerque. Our best wishes and congratulations to these gentlemen who have served MAB so well in the past!

Editor, U.S. MAB BULLETIN. . . . . Phylis N. Rubin, MAB Program Officer

Man and the Biosphere Program, OES/ENR/MAB

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