

Sustaining Home

Canadian Biosphere Reserves in Action

A Companion to Striking Balance



Sustaining Home: Canadian Biosphere Reserves in Action

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ABSTRACT: Below is an excerpt from Sustaining Home discussing the beginning of biosphere reserves in a Canada context. The full eBook of Sustaining Home, featuring interactive images, maps and video is now available on the Apple iBooks Store:

<https://itunes.apple.com/us/book/id1168439372>

UNESCO's Man and the Biosphere Programme was launched in 1971. Since the beginning, the program has explicitly sought to better understand how human activities were generating changes in the biosphere — that thin layer of life at the earth's surface.

MAB also had an explicitly normative orientation: to seek the best path to achieve desired outcomes. MAB scientists (including social scientists) hoped their research findings could raise public and political awareness of changes happening in the global biosphere to encourage individual and collective changes in decisions and policies affecting the environment. In short, researchers wanted to generate results that would inform knowledge users — local practitioners and decision-makers at all levels.

MAB's earliest research programs focused on what creators called the "human-use system," not exactly an

ecosystem, but rather, a system where humans and environments interact. This concept also emphasized that the research focus was *not* to be placed on untouched or isolated ecosystems, but that explicit attention be given to the interconnections between humans and the environment.

In 1971, placing people at the heart of conservation research and practice was a radical step. Previously, research in ecology had typically focused on untouched systems and viewed human activities solely as disturbances. Encouraging social scientists to work with natural scientists on these issues was also a significant departure from previous research programs.

The MAB Programme established 14 international project areas for research. Some of these project areas focused on the interrelationships between humans and ecosystems, while others focused on particular effects or processes deemed to be of global significance (such as perceptions and attitudes about the environment, and the use of pesticides). Each project area was to generate research that could be used to better understand the effects of human activities on the environment; this in turn could be used to improve decision-making about environment and sustainability. There was also an emphasis on training the next generation of researchers and practitioners, particularly in developing countries.

Biosphere reserves were created under Project Area 8 of the MAB Programme. This project area entitled, “Conservation of natural areas and of the genetic material they contain”, involved establishing a set of representative ecosystems around the world as sites of research, monitoring, education, and training. The greatest emphasis was placed on the conservation of biological diversity; biosphere reserves were supposed to become sites where conservation practices could be introduced, monitored, and reviewed, and where scientists could work with local managers to learn what worked and what failed, and to translate those lessons into best practices.

Particularly in developing countries, biosphere reserves were to be sites where local people could be trained to become applied ecologists or conservation managers. As places of learning, biosphere reserves were sometimes referred to as “living laboratories.” Importantly, biosphere reserve sites were to be part of an international network so that findings could be compared across the

network and researchers and practitioners could learn from practices elsewhere.

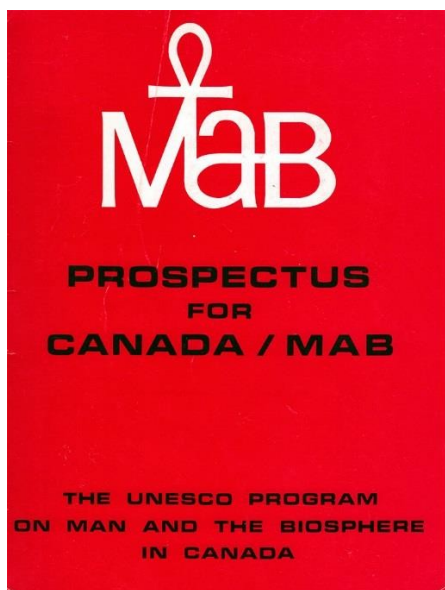
Despite its ambitious goals, funding for the MAB Programme was modest at best. In 1984, UNESCO, the United Nations Environment Programme (UNEP), and the then-named International Union for Conservation and Natural Resources (IUCN) jointly completed the *Action Plan for Biosphere Reserves*. However, the expected funding from UNEP and IUCN to implement the international action plan never materialized; in the words of Dr. Michel Batisse, it became “an action plan without action.”¹

Indeed, biosphere reserves have always run on a shoestring; for example, a study in 1992 indicated that the IUCN ran its programs with a professional and general service staff that numbered more than 500 employees, while the international MAB Programme in Paris had only 40. Consequently, MAB relied heavily on financial and logistical support offered by individual nation states. Canada’s role was enthusiastic and formative at the international level, but (as described later in this chapter) provincial and federal agencies did not provide a solid financial foundation for the program at home.

During the 1970s, a global economic recession reduced governmental enthusiasm for the program in many “developed” countries (including Canada), and not surprisingly, developing countries were not in a position to lead the program. There were also practical challenges associated with establishing and maintaining interdisciplinary research teams focused on problem-driven research.

While MAB’s research and training opportunities were showcased in an international conference in 1981, entitled “Ecology in Action,” the program overall was not well publicized and its goals and successes were not well understood by politicians or ordinary people living in participating countries. Internationally, the program’s uptake was uneven, and some project areas were not well developed. Many of the project themes were dropped, and project teams were disbanded. By the mid-1990s, MAB’s 14 international project areas fell away entirely, and many of the anticipated benefits of an international network were never realized.

¹ Batisse 2001



Cover of an early prospectus for Canada/MAB. Courtesy Dr. Patricia Roberts-Pichette and CCUNESCO

The evolution of the biosphere reserve concept

Despite the waning of the MAB's broader project areas, biosphere reserves — the small seeds sown under Project Area 8 — were taking root. The network grew quickly, beginning in 1974 with 24 sites in five countries. By 1981, 201 were designated; by 1992, 300 biosphere reserves had been established in 75 countries. In 2008, there were 531 biosphere reserves in 105 countries. Canada began slowly, with only two biosphere reserves established in the 1970s. The greatest growth was in the 2000s, when nine biosphere reserves were created. By 2016, Canada had 18 biosphere reserves.

The evolutionary history of biosphere reserves can be divided into two periods: the first period is from their origins in the MAB Programme up to 1995; the second period is from 1996 to the present. The division point marks the time when MAB officially adopted a statutory framework that set out formal conditions for how the World Network of Biosphere Reserves was to operate. At the same time, sustainable development was established as a guiding function for biosphere reserves; these changes were embodied in the *Seville*

Strategy, an action plan that guided biosphere reserves until 2008.

Period One: Conservation, research, and education

At the beginning of the first period, in 1974, a special task force convened jointly by UNESCO and UNEP drew up a set of objectives and characteristics for the international network of research sites, or biosphere reserves. It is significant that these objectives were established with UNEP rather than with the United Nations Development Program (UNDP), a clear signal that biosphere reserves were to serve environmental and conservation objectives. This focus was reinforced by the three primary objectives of the international network:

- to conserve for present and future human use the diversity and integrity of biotic communities of plants and animals within natural ecosystems, and to safeguard the genetic diversity of species on which their continuing evolution depends;
- to provide areas for ecological and environmental research including, particularly, baselines studies, both within and adjacent to these reserves, such research to be consistent with objective (1) above; and to provide facilities for education and training.²

One can see that the first objective — safeguarding biodiversity — indicated that biosphere reserves were to be a type of protected area. The word “reserve” reinforced this idea and indeed, biosphere reserves shared similar objectives with other kinds of research sites and protected areas around the world. The Americans had experimental forests and national parks, the then USSR had *zapovedniks*, while Britain had nature reserves. Biosphere reserves, however, were to have some important differences from these other designations. The aim with biosphere reserves was to understand and redress *widespread* environmental challenges rather than focus on places with exceptional qualities.³ They were also to be maintained with — and for — people.

² UNESCO 1974

³ Batisse 1982



The town of Mont Saint-Hilaire abuts the mountain, the core of Canada’s first bio-sphere reserve. Mitigating the impact of the increasing local population on both the mountain and other natural areas is a focus of the biosphere reserve. Courtesy *Striking Balance*

Because they were to foster an understanding of widespread challenges, biosphere reserves were to be *representative* ecosystems rather than unique ecosystems set aside for protection, and were to include natural and semi-natural ecosystems, including areas where ecosystems had been degraded but still had the potential for restoration. Individual sites were also to be configured differently from previously existing protected areas, such as national parks or nature reserves; each was to have a strictly protected area at its core (such as a national park or a wildlife sanctuary) and concentric rings of increasing human influence.

The classical configuration resembled a fried egg and would allow one to study the effects of human activities across space and over time (Figure 2). It would also allow for “manipulative research” — a strategy where researchers set up experiments outdoors, modify or “disturb” the ecosystem, and then study the results.

Over time, these research and training objectives merged into one objective, described as the “logistics” function of biosphere reserves, and today, “logistics” refers to a wide range of ideals. Training has given way to broader concepts of education, which can include local residents, visitors, and practitioners with a range of interests and perspectives and from various sectors of society. Education now involves more than classroom education and includes activities such as demonstration, raising interest and awareness, and outreach. Citizen and community science — described

in greater detail in Chapter 4 — are also a part of the logistics function.

And, for some biosphere reserves, education also means building capacity, i.e., helping local people understand the environmental, social, and economic challenges within their communities and seeking out tools that can be applied locally to address those challenges. These tools may involve activities such as regular monitoring of local changes, collaborative planning exercises, skills development, and so on.

Biosphere reserves today serve an important additional function: to become models of sustainable development. This function is not entirely new; when biosphere reserves were first established, some of the creators spoke about the reserves’ role in promoting “integrated development” and in creating production systems (primarily agricultural systems) that would maintain ecosystem functions and processes.

Despite these early ideas, the development function was neither clearly articulated nor formally implemented. Instead, in the first decade, many biosphere reserves were established on top of pre-existing protected areas such as national parks, zapovedniks, and nature reserves. (By 1981, about 84 percent of biosphere reserves were designated in such a way).⁴ The restrictions that had been placed on the original protected areas were effectively — if unofficially — placed on biosphere reserves as well, with the result that involvement of local people living in or near biosphere reserves was often restricted.

The international conservation community eventually became concerned that shutting people out of protected areas would not generate the conditions necessary for the long-term protection of biological diversity. Following the First International Congress on Biosphere Reserves, in 1983, Canadian researcher George Francis reflected:

... unless the goal of ecosystem conservation is linked directly to development issues, it will not progress much further in many parts of the world. While some people in industrialized countries seem to view biosphere reserves as little more than a mark of recognition for their long-established parks or nature reserves, others working in developing countries are beginning to see considerable potential in the idea of a

⁴ Miller 1982

*biosphere reserve as a kind of outdoor laboratory of evolving eco-development strategies to meet the basic needs of local communities. We can look forward then to a continued evolution of the concept as both its potential and its flexibility for adaptation become more widely appreciated.*⁵

Dr. Francis's comments were prescient. They foreshadowed concerns that would dominate the MAB Programme following the work of the World Commission on Environment and Development (also known as the Brundtland Commission).



In the Waterton Biosphere Reserve, ranchers like Kathy Flundra, use cattle to maintain the prairie ecosystem. Courtesy *Striking Balance*

Period Two: Grappling with sustainable development

The seeds of the second period were sown when the Brundtland Commission published its final report, *Our Common Future*, in 1987. The report is credited with the widespread adoption of the term “sustainable development,” and it encouraged governments to identify strategies to reconcile the imperatives of environmental protection and economic development.

The Brundtland Commission's report supported the expansion of biosphere reserves. However, it referred to biosphere reserves only according to their role in conserving biodiversity, not to their role in supporting sustainable development, and therefore led to some soul searching on the part of MAB proponents.

Early biosphere reserves were created without significant public consultation. Scientists and public servants within each nation-state had effectively made the decisions about where they should be located. By

⁵ Francis Fonds

the late 1980s and early 1990s, researchers and program officers in MAB — along with external advisors — began to express concern that the goals of protecting biodiversity would not be achieved without more direct attention given to development challenges in both pre- and post-industrial countries.

Program officers and researchers affiliated with MAB examined their own practices, and pointed to a few examples of extensive local involvement in biosphere reserves. One of these was the Mapimi Biosphere Reserve in Mexico, where local people had been involved in selecting the site for the biosphere reserve and managing activities thereafter. Another was the Waterton Biosphere Reserve in Alberta, where local people were involved in implementing projects.



Dr. Anne Whyte at the Mapimí Biosphere Reserve. Courtesy *Dr. Anne Whyte*

But these were exceptions. In 1993, a study of almost 300 nomination forms revealed that information regarding the participation of local people in the proposed biosphere reserves was included in only 40 applications.⁶ In 1993, UNESCO reported that program officers knew very little about the status of local populations or their involvement in biosphere reserves. The report also indicated that — in some regions — local people were restricted from using parts of biosphere reserves, had little or no say in their operation, and had not been provided with specific benefits. And researchers reported that in some places,

⁶ UNESCO 1993

the livelihoods of local people had declined since biosphere reserves had been created⁷



An early meeting of biosphere reserve supporters.
Courtesy Waterton Biosphere Reserve and Larry Frith

It is plain, then, that biosphere reserves were not immune from the criticisms levelled at protected areas more generally, where ecosystem protection had come into conflict with protecting peoples' livelihoods and well-being. The formative Canadian biosphere reserves (designated between 1978 and 1990) were not subject to the same criticisms at that time, possibly because they were established where the core protected areas were already part of the contemporary landscape, and possibly because their establishment did not alter the legal obligations or property regimes of pre-existing landowners. Another possible reason is that the concerns, interests and rights of Indigenous peoples had not been fully taken into account by mainstream Canadian society — an issue that would be raised much later among Canadian biosphere reserve practitioners and Indigenous peoples (see Chapters 7–9).

Clearly, to address these concerns, MAB had to articulate a more inclusive vision. In 1995, following its 2nd World Congress of Biosphere Reserves, the MAB Programme established the *Seville Strategy* and the *Seville Statutory Framework*. Article 3 of the Statutory Framework states the following: “[B]iosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to

conservation and sustainable development at a regional scale.”⁸

Strategic documents from UNESCO⁹ began to emphasize local engagement and knowledge as well as the need for more social science research within biosphere reserves. The *Madrid Action Plan for Biosphere Reserves*, created at the 3rd World Congress of Biosphere Reserves in 2008, guided the international network from 2008–2015. This plan suggests that sustainable development must include both an understanding of cultural diversity as well as efforts to enhance that diversity. It also directs member states to ensure that individual biosphere reserves engage in open and participatory processes that help strengthen cultural identity, values, and practices.¹⁰

Over time, the development function gained greater prominence. In 2015, the MAB Programme declared in its new *MAB Strategy 2015-2025*, that the World Network of Biosphere Reserves consisted of “effectively functioning models for sustainable development”. The *Strategy* also committed the MAB Programme and the international network of biosphere reserves to working towards the United Nations' Sustainable Development Goals.¹¹ In short, by 2015, sustainable development formed the *raison d'être* for biosphere reserves.

In 2016, the 4th World Congress of Biosphere Reserves was held in Lima, Peru, where the congress upheld the new *MAB Strategy 2015-2025* and set out the *Lima Action Plan*, designed to guide the actions of biosphere reserves until 2025.¹² Today's *MAB Strategy* does not emphasize building a network of representative ecosystems for applied research and training; instead, the guiding strategy suggests that biosphere reserves “should be representative of their biogeographic region and of significance for biodiversity conservation.”¹³

The new strategy also explicitly speaks to “sustainability science” as a key mechanism to

⁷ Ghimire 1991; Nyakweba 1993; Price 1996

⁸ UNESCO 1996

⁹ For examples, see UNESCO 2000; 2002

¹⁰ UNESCO 2008

¹¹ See UNESCO-MAB 2015 and United Nations 2015

¹² UNESCO-MAB 2016

¹³ UNESCO-MAB 2016

generate, communicate, and share knowledge. According to the strategy, sustainability science is:

*an integrated, problem-solving approach which draws upon scientific, traditional and Indigenous knowledge to identify, understand and address present and future economic, environmental, ethical and societal challenges which are related to sustainable development. At a biosphere reserve level, this requires collaboration between all the different stakeholders, including scientists, policy makers, members of local communities, and the private sector.*¹⁴

The *Lima Action Plan* reinforces the overall strategy with specific actions directing members to ensure open and participatory selection, planning, and implementation of biosphere reserves and to contribute to the implementation of the (United Nations') Sustainable Development Goals, which include taking into consideration the rights of Indigenous peoples.



Canadian Biosphere Reserves Association President, Jean-Philippe Messier, presents at the 4th World Congress in Lima. Courtesy Xavier le Guyader

Canada in relation to the international program, 1970s–present

Canadians are credited with championing the integration of natural and social sciences in the conceptualization and execution of applied research about human-environment relations. Two prominent Canadian scientists, Drs. George Francis and Fred Roots, have already been noted. Others, such as Dr. Fikret Berkes, also served on the Canadian MAB Committee during the 1990s. But an earlier pioneer

was Dr. Anne Whyte, a geographer from the University of Toronto who was later seconded to UNESCO in Paris to lead the MAB project areas on environmental perception.

During the 1970s and 1980s, Dr. Whyte lobbied to ensure that both natural and social scientists became involved in MAB research initiatives. She developed a set of guidelines for studying environmental perception, and she drew from the methods and approaches of different disciplines and evaluated them for their potential application across a range of environmental and cultural contexts.¹⁵ While working in Paris, she identified points of convergence between the natural and social sciences as well as the challenges of working together (seeking to reinforce the former and address the latter). For example, she identified how researchers could draw on theories and frameworks that would embrace natural and social science contributions. She also encouraged natural and social scientists to work together to better understand each other's use of language, methods, and ways of knowing in an effort to improve understanding of human-environment relations. Dr. Whyte also advocated greater involvement of local people in research projects sponsored by MAB.¹⁶

¹⁴ UNESCO-MAB 2016

¹⁵ Whyte 1977

¹⁶ Whyte 1982



Dr. Anne Whyte. Courtesy Anne Whyte

Other Canadians also contributed in very practical ways.¹⁷ The Canadian MAB Committee was the first national committee within MAB to establish national-level criteria for nominating biosphere reserves — criteria which were established and then revised in three documents (1976, 1977, 1982) that were shared and adapted (or adopted) in other countries.¹⁸ The criteria included seeking representation from each of the world’s ecological regions at that time, called “biogeographical provinces.” These provinces were mapped by a Hungarian biologist and biogeographer,

¹⁷ See end of article for past Canada MAB-related committees

¹⁸ Canadian Committee for MAB 1975; 1977; 1982

¹⁹ For examples, see Kates et al. 2001; Kates 2011

Miklos Udvardy, and adopted by UNESCO as a guide for selecting biosphere reserves around the world.

The 1980s drove home the expectation of problem-driven research, which sustainability scientists now call “use inspired” research.¹⁹ In 1987, Canada developed a *National Action Plan* designed to link the actions of biosphere reserves to provincial and national conservation strategies. Its authors believed that the action plan would form part of Canada’s response to the Brundtland Commission and the World Conservation Strategy. The plan articulated Canada’s strong support for an international network of representative ecosystems, envisioning that there should be at least one biosphere reserve in each of the world’s biogeographic provinces within Canadian borders. At the time, there were four Canadian biosphere reserves (at Mont Saint-Hilaire, QC, Waterton, AB, Long Point, ON, and Riding Mountain, MB); Canada’s plan identified the desire for nine new biosphere reserves, for a total of 13. The plan was strong in its ambition, but weak in its capacity for action at the senior government (provincial and federal) levels.



The Waterton Biosphere Reserve is at the intersection of the Prairie and Montane Cordillera biogeographic provinces. This intersection can be seen from Julia Palmer’s ranch. Courtesy Striking Balance

During the 1990s, federal oversight of the Canadian contribution to the MAB Programme and biosphere reserves fell apart, and by the mid-1990s the Canadian MAB Committee became inactive. Nevertheless, there was a flurry of activity as people in various regions began to develop nomination proposals. Often taking years to move from concept to designation, these proposals were drafted in the absence of any real governmental support. To the credit of George Francis and Fred Roots, Canada submitted nine new biosphere reserve nominations in the 2000s; all of those nominations had been developed over many years during the 1990s.

Canadian biosphere reserve practitioners were working hard, both within and beyond their regions. In 1980, the Canadian MAB Committee established a Biosphere Reserves Working Group to foster cooperation among the existing biosphere reserves and to facilitate the development of new Canadian reserves. Under the stewardship of the Working Group, four new biosphere reserves were designated by 1990, bringing the total number of Canadian biosphere reserves to six. From the early 1990s onwards, Parks Canada and Environment Canada's Ecological Monitoring and Assessment Network supported a number of initiatives, such as the development of biodiversity monitoring plots in biosphere reserves across the country. In 1996, the Working Group was re-formed with representatives from the existing biosphere reserves to become the Canadian Biosphere Reserves Association (CBRA). CBRA was incorporated in 1997 to enhance support and program activities across the national network. In 1998, CBRA received official charitable status.

From 1997–2001, the six biosphere reserves conducted a joint study of landscape change within each locality under a study agreement with Environment Canada, the Ontario Ministry of Environment, and the CBRA. This project — the network's first collective research effort — provided knowledge about land cover change in those regions since European settlement.

The year 2002 was important internationally. The World Summit on Sustainable Development was to be held in Johannesburg, South Africa, and Canada's federal government wanted to showcase the work of biosphere reserves. Parks Canada was able to secure funding from the then Canadian Secretariat for the World Summit on Sustainable Development, from

which each biosphere reserve received about \$10,000 to complete a cooperation plan to demonstrate how biosphere reserves work with regional partners to deliver “sustainable development.” One biosphere reserve practitioner, Éric Malka, at the Mont Saint-Hilaire Biosphere Reserve, was selected and sponsored to attend this event.

Despite the summit's high profile, little of that benefit trickled down to the Canadian biosphere reserves, and they continued to struggle financially. In 2002, a workshop was held at Carleton University involving representatives from federal and provincial agencies, nongovernmental organizations, organizations such as the then National Round Table on Environment and Economy, and foundations such as TD Friends of the Environment Foundation. The workshop preceded the World Summit and was designed to showcase the work of biosphere reserves and identify potential funding partners that could provide reliable support for the network. Participants raised lots of good ideas, but ultimately the desired assistance did not materialize. At the end of the workshop, John Whitaker, a longstanding CBRA member, summarized his frustration: “The Canadian network is a single parent, working two jobs, trying to raise 11 children, receiving suggestions but no support from neighbours.”

Optimism abounded in Canada in the early 2010s. CBRA had signed a contribution agreement with Environment Canada, and with a university researcher had secured funding from the national Social Sciences and Humanities Research Council (SSHRC) to engage in a partnership designed to improve biosphere reserve effectiveness through social learning and networking strategies. Much good came from these short-lived efforts but sadly, the contribution agreement was cut short two years before its expiry and was not renewed. The national executive was laid off, as were several local coordinators. The SSHRC partnership expired after three years, although some initiatives from it have continued (See Chapters 7 and 8).

Ultimately, though, 14 years later one could echo those words of John Whitaker, except that now there are 18 children in the biosphere reserve family.



John Whitaker at the Riding Mountain Biosphere Reserve. Courtesy Maureen Reed

The Canadian MAB children: Forever orphans?

Canadians have done a lot to support the UNESCO MAB program, establish and execute biosphere reserve ideals, and participate in the international network. Countless volunteer hours have been spent on individual biosphere reserves < in national efforts and in linking with the international program. Researchers and Practitioners alike have worked on policies and practices to enhance sustainability around the country, and have also been pioneers in conceptualizing and realizing the concepts of sustainability science.

A significant challenge has been executing a program that has no obvious “home.” Municipalities may be located within biosphere reserves, but they do not have specified mandates for environmental programs. Provincial governments, and now territorial governments, are largely responsible for managing the lands and natural resources that exist within their boundaries. The federal government is responsible for implementing international commitments and programs. Hence, there are many levels of government with potential interests in biosphere reserve objectives, but there is no clear level at which these interests might be translated into responsibilities.

To compound the confusion, within the federal government, both Environment Canada and Parks Canada have responsibilities directly related to biosphere reserves. However, so do other agencies, such as Fisheries and Oceans Canada, Natural Resources Canada, Agriculture and Agrifood Canada, and Indigenous Affairs and Northern Development Canada. But because biosphere reserves span

environmental, economic, *and* social concerns, no one agency has a defined mandate to support it. There has been little leadership, and consequently, little by way of sustained funding or logistical support.

While Canadians have done a lot, Canada has not. But Canada is not alone; the challenge of implementing its own program also faces UNESCO, an organization that has also worked with limited financial resources and which has seen dramatic drops in funding over its lifespan due to the withdrawal of funding commitments by individual nation states. Despite these limitations, biosphere reserve practitioners continue to dedicate their efforts to conservation and sustainable development through a variety of programs and offerings.

Canadian MAB Committee of the Canadian Commission for UNESCO, 2010–2016

- Stan Boychuk (Chair) – Private Consultant, Victoria (BC)
- Maureen Reed (Vice-Chair) – University of Saskatchewan, Saskatoon (SK)
- Jean-Phillipe Messier – President, Canadian Biosphere Reserves Association and Executive Director, Manicouagan-Uapishka Biosphere Reserve, Baie-Comeau (QC)
- Marc-André Guertein (to December 2015) – Assistant Professor, Sherbrooke University, Sherbrooke (QC)
- Eli Enns – Regional Coordinator, North America Indigenous Peoples and Community Conserved Territories and Areas (ICCA) Consortium, Victoria (BC)

Canada MAB working group on biosphere reserves, 1982

- Dr. George R. Francis (Chair) – Professor, Man-Environment Studies, University of Waterloo, Waterloo (ON)
- Michel Drew – Mont St.-Hilaire Nature Centre, Mont St. Hilaire (QC)
- Harold Eidsvik – Senior Policy Advisor, Programme Policy Group, Parks Canada, Ottawa (ON)
- Dr. Bristol Foster – Ecological Reserves Unit, Ministry of Lands, Parks and Housing (BC)
- Geoff Holland – Director, Ocean and Aquatic Sciences, Department of Fisheries and Oceans, Ottawa (ON)
- Frank Manual – Deputy Minister, Department of Tourism, Recreation and Culture, St. John’s (NL)

- Dr. Norman Simmons – Assistant Deputy Minister, Department of Renewable Resources, Yellowknife, (NWT)

The 1987 Action Plan committee

- Richard Bill, Inland Waters and Lands Directorate, Environment Canada, Ottawa (ON)
- Environment Canada and Fred Roots supported its preparation
- Alex T. Davidson wrote the preface, Environment Canada, Ottawa (ON)
- George Francis chaired the working group on biosphere reserves

A workshop on biosphere reserves that developed the guidelines for selecting biosphere reserves in Canada (1975) included:

- Dr. Gordon Nelson (Chair) – Department of Geography, University of Western Ontario, London (ON)
- Mr. Iain Baines – Environmental Management Services, Department of the Environment, Ottawa, (ON)
- Dr. Bristol Foster – Coordinator, Ecological Reserves, Victoria (BC)
- Dr. Dennis Kerfoot – Physical Scientist, Arctic Land Use Research Station, Ottawa (ON)
- Professeur Gille Lemieux – Department de Pedologie et d'ecologie, Faculte de Foresterie et de Geodesie, Universtie de Laval, Québec City, (QC)
- Dr. Everett Peterson – Western Ecological Services, Edmonton (AB)
- Dr. I.C.M. Place – Canadian Forest Service, Department of Environment Ottawa (ON)
- Mr. Peter Poole – Parks System Planning Division, Parks Canada, Ottawa (ON)
- Dr. Normal Simmons – Canadian Wildlife Service, Yellowknife (NWT)
- Dr. John Theberge – School of Urban and Regional Planning, University of Waterloo, Waterloo (ON)
- Mr. John Whiting – The National Museum of National Sciences, Ottawa (ON)

Members of the MAB Subcommittee on Criteria (for evaluation process, project selection, and program review) 1975

- P.M. Bird (Chair) – International Program Branch, Liaison and Coordination Directorate, Environment Canada, Ottawa (ON)
- H.F. Fletcher – Fisheries Research Board Service, Ottawa (ON)
- P. Jacobs – Faculté d'Aménagement, Universtie de Montréal, Montréal, (QC)
- D.R. Miller – Department of Biological Sciences, National Research Council, Ottawa (ON)
- P. Roberts-Pichette – Executive Secretary, Canadian MAB Programme Secretariat, Liaison and Coordination Directorate, Environment Canada, Ottawa (ON)
- D. Sewell – Department of Geography, University of Victoria, Victoria (BC)

¹ Canadian Committee for MAB 1975; 1977; 1982

¹ For examples, see Kates et al. 2001; Kates 2011