

Forty Years of Institutional Change and Canadian Protected Areas, or, Are things getting better or just more complicated?

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Introduction

There can be little question that over the last forty years there has been widespread change in the philosophy, practice, and context of parks and protected areas, and conservation. Institutional change has been a big part of the contextual change, and is linked to broader social, economic and cultural changes. Geographically, my focus is first and foremost on Canada, but also the USA and globally, insofar as changes there have affected Canadian parks and protected areas. Many, many topics might be considered, so I must be selective here, especially considering other papers here cover some things in more detail, e.g. park history, details of funding and administrative changes. Much more detail on park and protected areas history, diversity, and management, in Canada and globally, can be found in Dearden & Rollins (In press) and Lockwood, et al (2006). Even so, the challenge is to condense the main contextual and institutional changes into a short paper or presentation. I will do it in four parts, addressing where we were forty years ago; where we went between then and now; where we are now, in summary; and end with some conclusions and suggestions to spur debate.

Where We Were

Forty years ago the protected areas context, institutional and otherwise, was much simpler (see Figure 1). There were national and provincial parks, wildlife sanctuaries and migratory bird sanctuaries. Private reserves, ecological reserves, biosphere reserves, and others now common, were very few. Higher tier parks often had strong conservation mandates, but recreation, tourism and scenery were still strong drivers of park creation and management. Provision of visitor facilities and enforcement activities were strong in most parks. Parks were mostly terrestrial, and views of protected areas as islands or fortresses, the national park ideal, were still dominant. Upper tier governments (federal and provincial) were the dominant players, and there was relatively little relevant legislation – we had yet to see most modern environmental policy, legislation, and international agreements. There were few NGOs, and just a handful concerned with parks and protected areas, e.g. the Yukon Conservation Society (YCS), the National Parks and Protected Areas Association of Canada (NPPAC, which became CPAWS), the Alberta Wilderness Association (AWA).

The environmental movement was just beginning, and still relatively focused on species protection, water, and pollution. Multiple use was the dominant broad resource management paradigm, and integrated or comprehensive approaches were just beginning in watershed and land use management. Sustainable development was but a hint in obscure UN discussion papers. Canadian federalism was still strong; NAFTA was nonexistent. The British North America Act of 1867 guided the division of powers between federal and provincial governments. The

Territories were still controlled by the Federal government, and progress toward comprehensive land claims had barely begun.

Where We Went

Over the last forty years there has been much change in the institutional context of parks and protected areas in Canada. For the sake of discussion I will use five categories: Ideas and Knowledge, International Developments, Approaches and Activities, Policy and Law, Administration and Organizations. This progression reflects the process of change from ideas and international change through incorporation into approaches, practice, and policy and law – though it's seldom a simple, linear process.

Ideas and Knowledge

Ideas and knowledge may be abstract, but they certainly influence the structure and function of institutions and management, through approaches and activities, and ultimately their influence on policy and law. Simultaneously there have been tremendous, interlinked changes in scientific understanding of ecological systems and human-environment relationships. Research approaches have changed from largely disciplinary, to inter-, multi-, trans-disciplinary, and systems and complexity approaches have become more influential (e.g. Gunderson & Holling 2002; Walker & Salt 2006). Several ideas with broad influence, such as ecosystems and sustainability, came to broad attention in the 1970s and 1980s. And in turn the study of ecology and ecosystems has developed tremendously over the last forty years. Over the same period public concern for the environment, however much it may have waxed and waned, has steadily grown; and this is especially so for natural places. The many place and protected area battles in many parts of Canada are testament to this, and have helped foster more systematic planning approaches that include attention to protected area identification. Understanding of human-environment relationships has also developed, including human ecological ideas (Marten 2001); perceptions, attitudes, and values; and attention to the role of local and indigenous peoples and communities in environmental management (e.g. Agrawal & Gibson 2001; Brecchin, et al. 2003). Ecological economics has come along to try to integrate ecological and economic dimensions of human-environment systems (Common & Stagl 2005). State of the environment, and more recently state of the park, reporting developed from the convergence of some of these new ideas and disciplines.

These broad trends have had specific influence in parks and elsewhere. Through, for example, research into ecosystem science, island biogeography, conservation biology, ecological health and integrity, ecosystem restoration, fire dynamics, and systems and complexity we have a very different understanding of the complex, dynamic nature of protected area biophysical systems. And we have also a much stronger understanding of the threats to protected areas, the values and interests people ascribe to them, their economic value, their place and intrinsic value in different philosophical and ethical perspectives, and their significance to local and indigenous peoples in cultural and economic terms. We also have more understanding of what's still not in current protected area systems, notably aquatic systems.

International Developments

Perhaps the biggest international environmental development of the last forty years was sustainable development. Its influence since the mid-1980s has been very strong (see Gibson 2005 for an overview). The influence of sustainability is linked to several global conferences on the environment, notably in 1972 in Stockholm (UNCHE), and 1992 in Rio de Janeiro (UNCED), with several smaller follow-up conferences since. The significance of protected areas has grown in these meetings, and their resultant work plans (e.g. Agenda 21, see Bigg 2004); and especially in the work of the secretariat of the Convention on Biological Diversity which emerged from the Rio meeting and picked up steam in the last ten years.

As well numerous international initiatives and conventions, driven by science and conservation, and cultural and economic factors in some cases, have influenced Canadian protected areas: the Convention on International Trade in Endangered Species (CITES), the World Heritage Convention (WHC) and its natural and cultural World Heritage Sites, the UNESCO Man and the Biosphere (MAB) Biosphere Reserves program, the Convention on Wetlands of International Significance (RAMSAR), and the Important Bird Area (IBA) program, among others. The numbers of these new protected area designations have all grown into the hundreds globally. While they mostly are just designations given to existing protected areas, they have fostered new approaches to management, as through biosphere reserves, or somewhat stronger protection, as through the WHC and RAMSAR. For more on international environmental developments and governance see Hunter, et al. (2007), Speth (2006).

Simultaneously new international NGOs developed, from World Wildlife Fund through Conservation International, whose activities and perspectives have changed protected area practice. IUCN, now known as the World Conservation Union, has continued its work on protected areas, through the large World Commission on Protected Areas (WCPA). Its decadal World Parks Congresses have become bigger and bigger (only the first had taken place by 1968). The strong US influence was noted above. The huge growth in protected areas globally that others have noted has driven many changes, from critical attention to the model of protected areas (see Brecchin, et al. 2003) to efforts to systematize the tools and terminology and tracking of protected areas (mainly through the World Conservation Monitoring Centre (WCMC) in Cambridge, UK, now linked to the United Nations Environment Programme, UNEP).

Approaches and Activities

The resource and environmental management context has also changed over the last forty years, with strong development of comprehensive, adaptive, participatory approaches to planning and managing protected areas (and their regions) such as integrated resource management, ecosystem-based management, and integrated resource and environmental management (see Hanna & Slocombe, 2007; Slocombe & Dearden in press). Resource development has also changed and expanded, perhaps especially the energy, mining, tourism, and transportation sectors. Urban areas have expanded tremendously over this time period as well. Comprehensive regional land use planning, begun in the 1970s, has done much to foster systematic protected areas planning on the ground in large regions, improving both recognition of their economic and conservation roles in many places. More and more park identification and establishment is not separate from other land and environmental planning activities. Parks Canada developed a

'regional integration' approach in the 1980s. It was not widely applied but interest is growing again.

Change has also been driven by the tremendous growth in protected areas outside North America and Australia in the last forty years. The diversity of areas, management contexts, and management practices has given great strength to debates about the traditional, strictly protected model, and leading to the recent debates about the new paradigm for protected areas (Phillips 2003; Hanna, et al. 2008). Global growth in protected areas, along with more integrated resource management initiatives, and more political interests, has also catalyzed interest in transborder initiatives (e.g. Ali 2007; Chester 2006; Mittermeier, et al. 2005; Nelson, et al. 2003) – not to mention corridors such as Yellowstone to Yukon.

Species at risk initiatives are relatively new in Canada but having impact. Increasingly protected areas are seen as one prong in multi-faceted conservation activities. Similarly, there has been great growth in the last thirty years or so, and perhaps twenty in Canada, in a range of more or less private approaches, easements, legacies, private reserves, catalyzed by a few key NGOs. As in other areas of governance and management, there has been strong growth in monitoring and research approaches for protected areas. Effectiveness evaluation (Hockings, et al. 2006) has become a key part of this, though still difficult to implement, and perhaps weak on outcomes monitoring. Park selection and establishment has also changing tremendously, partly reflecting new ecological knowledge, and tools such as geographic information systems (GIS) and remote sensing, partly reflecting the changed availability of land in most of Canada, and partly reflecting different federal/provincial/territorial relations and the need for vastly greater local consultation than forty years ago.

Policy and Law

The development of environmental concern, policy and legislation has had major influence on protected areas. First, it increased public attention and interest in protected areas: leading to many more national and other parks. And it lead to new policies and legislation at many levels. Environmental assessment and endangered species legislation have been especially influential, developing first in the USA and later in Canada. Species at Risk legislation developed slowly in Canada, but is starting to be a significant force in conservation. Environmental assessment requirements became a significant factor for many Canadian parks in the 1980s.

The revisions of Canada's national Parks Act in the last 25 years have been substantial, strengthening the role of resource conservation and reporting, especially. Many provincial jurisdictions modified polices, and changed park classifications in this period. Most modern park policies, resource management practices, and selection procedures have been formalized since 1968. Contributing to much of this policy change was a series of Parks Conferences, in 1968, 1978, and in 1985 for the National Parks Centennial. In addition, national and provincial jurisdictions, at least, have created numerous new parks in several waves since the late 1960s – often without commensurate increases in funding. Simultaneously, there have been new kinds of protected areas created, e.g. ecological reserves, heritage rivers. In the last decade we have seen the National Marine Conservation Areas (NMCA) Act and the Oceans Act which allows for the creation of marine protected areas (MPAs). Their promise has, however, yet to be realized.

Many of the larger new protected areas in the last twenty years have been catalyzed by comprehensive land claims agreements in northern Canada, in turn spurred by the Constitution Act of 1982 and pre-existing processes. Comanagement of protected areas is a common element of these new protected areas. This underscores that not all the change has explicitly focused on protected areas, or even conservation and environment. The Constitution Act, which replaced the BNA Act, strengthened provincial and aboriginal roles and rights in resource and environmental matters (among others) with broad implications. A steady process of federal government reduction of its role in resource and environmental management, and strengthening of provincial roles (harmonization), has taken place. Devolution of authority to Territorial governments is a related process; complete for Yukon, and proceeding for NWT and Nunavut. North American and global free trade agreements have influenced what's seen as possible and what's not in environmental regulation (Boyd 2003; Loo provide interesting histories and critiques of change in Canadian environmental and wildlife policy).

Administration and Organizations

Since the National Parks Centennial, essentially, a succession of more or less conservative governments at federal and provincial levels, in Canada and elsewhere, has downloaded responsibilities, downsized resource and environmental departments, weakened the federal role and increased harmonization initiatives, and limited funding increases for protected areas even while their numbers increased. In many contexts and levels need has increased while capacity has decreased. Privatization of services, monitoring, and enforcement, in various degrees and combinations has resulted, as well as user fees. Many parks agencies have also faced frequent re-organizations, often reducing control at the park level in favour of regional and provincial/national control, as governments have changed and sought efficiencies and other benefits (see Dearden & Dempsey 2004 on many of these issues). Institutional demographics are also significant as retirements in many management agencies lead to changes in staff, culture and approaches.

A substantial change over the last forty years has been the growth of NGOs, interested citizens, and civil society around parks and protected areas. There are the traditional "Friends of..." groups, but also Park Watch groups, land trusts, and major protected area focused NGOs such as CPAWS, WCWC, Nature Conservancy, Carolinian Canada, and many others. On the parks research side there is the George Wright Forum in the USA, and in Canada, the Science and Management of Protected Areas Association (SAMPAA) and its series of conferences, and several provincial Parks Research Forum organizations (Ontario, BC, Manitoba) which further the development and dissemination of research on protected areas.

Where We Are Now

Protected area management is much more active, diverse, inclusive, and cognizant of system dynamics, connectedness, and varied public and visitor significance (see Figure 2). Changes in science, governance, and management approaches have had many implications, including diversifying the designations and purposes of protected areas. The actors involved with protected areas have also expanded with public/private partnerships, private protected areas, and substantial roles for NGOs such as land trusts and nature conservancies. Park management is

much more complicated and complex than it was, driven by a varying mix of science, budgets, and often high- and low-level politics. The management context is more complex, with many more actors, policies, laws, and interests to be considered, and many more requirements that they be considered. There are more institutions at more levels, and more biophysical and socioeconomic connections within and across levels. We are also in a time when resource and other development is favoured and fostered by policies and laws at many levels, there is less land available for new protected areas, and there has been much more environmental change than there was forty years ago.

While we have better understanding of the complexity of PPAs and their contexts, this has generated a greater number of PPA goals and threats, more complicated management, more institutional diversity, less institutional stability; and simultaneous competition & balkanization, cooperation & standardization, among agencies, NGOs, governments depending on the issues and place. Demographic and cultural change in society at large is also starting to raise questions about park purposes and the experience needed there to maintain public support for them. Arguably, the environmental focus of society has become dispersed on a range of issues; and even more recently may be being diverted to more immediate concerns by rising energy prices. Concerns over security, and human and livestock health, have also impacted travel and tourism and the economics of many protected areas and their regions. It is not only social forces pushing change – the near certainty of global environmental change is also pushing new thinking about protected areas. All these changes have generated new and often contesting ideas about what a protected area should be, and how it should be managed. There is room for diversity, but likely we still need a full range of options from traditional protected parks to much more flexible designations for particular places and purposes.

Prescriptions for improving management and conservation are varied, and a specific discussion is beyond the scope of this paper. Some prescriptions call for doing better what we have always done, and reversing the harmful cuts and reorganizations and redesignations of the past. Other prescriptions call for entirely new approaches, often combining ideas and methods from systems, complexity, adaptive management, participatory research and management (cf., in other contexts, Berkes, et al. 2003; Armitage, et al. 2007). Some of both are likely needed, but this may be a good place to make a distinction between complex and complicated. The distinction emerges from systems ideas about complexity, both older and newer (e.g. Weinberg 1975's notion of middle-number systems, and Stuart Kauffman 1995 and others' ideas of the edge of chaos).

More simply it relates to the difference between system structure and organization. System structure is parts, number; system organization is connections, relationships, links. The former is the base of complication – more parts, more actors, for example; the latter is the base of complexity – interactions and connections that create (often nonlinear, cross-scale) feedbacks. As complex is a rather much used word these days it is useful to distinguish what is and isn't complex. And there are practical implications to the distinction (see Figure 3). Complicated problems, which many much discussed parks problems such as staffing, budgeting, and services are, can be addressed with effort, leadership, resources, which have been lacking in recent years in government. Complex problems such as environmental change and ecological restoration are

much more difficult, with fundamentally complex bases, more clearly requiring new knowledge and management approaches.

Conclusions

There has been so much change over the last forty years that it is hard to decide what is most important, or what to conclude. We have arguably moved from concern with species to ecosystems to socio-ecological systems, and to recognition of protected areas as one of many tools for resource and environmental sustainability at regional and larger scales. And there are a few oft-cited examples of new, regional approaches, e.g. the Muskwa-Kechika in northeastern BC (and see Nelson, et al. 2003). Our approaches have certainly become more collaborative, more complicated and complex. There are more attempts at learning from partners, neighbouring communities and First Nations, and management itself. Certainly institutional structures have changed, and their cultures, management priorities and practices. Almost certainly we are still in the middle of a process of change. I will make just a few suggestions for priorities in future.

First, we could use more agreement on goals of particular, diverse protected areas, and how they might work together as a system, and less debate on the types or categories. Second, we could surely use more collaboration between parks agencies, and between and among other protected areas actors as well. Linked to this is, three, more institutional learning, capacity building, and fostering of adaptability. Part of this may well require more research, particularly large-scale, collaborative endeavours between agencies and academics and others. We also need, four, to better recognize the ecological and intrinsic value of parks and protected areas AND the economic, social, and cultural values. Fifth, we need to build our ability to focus simultaneously on species, and ecosystems, and linked social-ecological systems, which will help us with the truly complex problems.

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Institutions

Activities

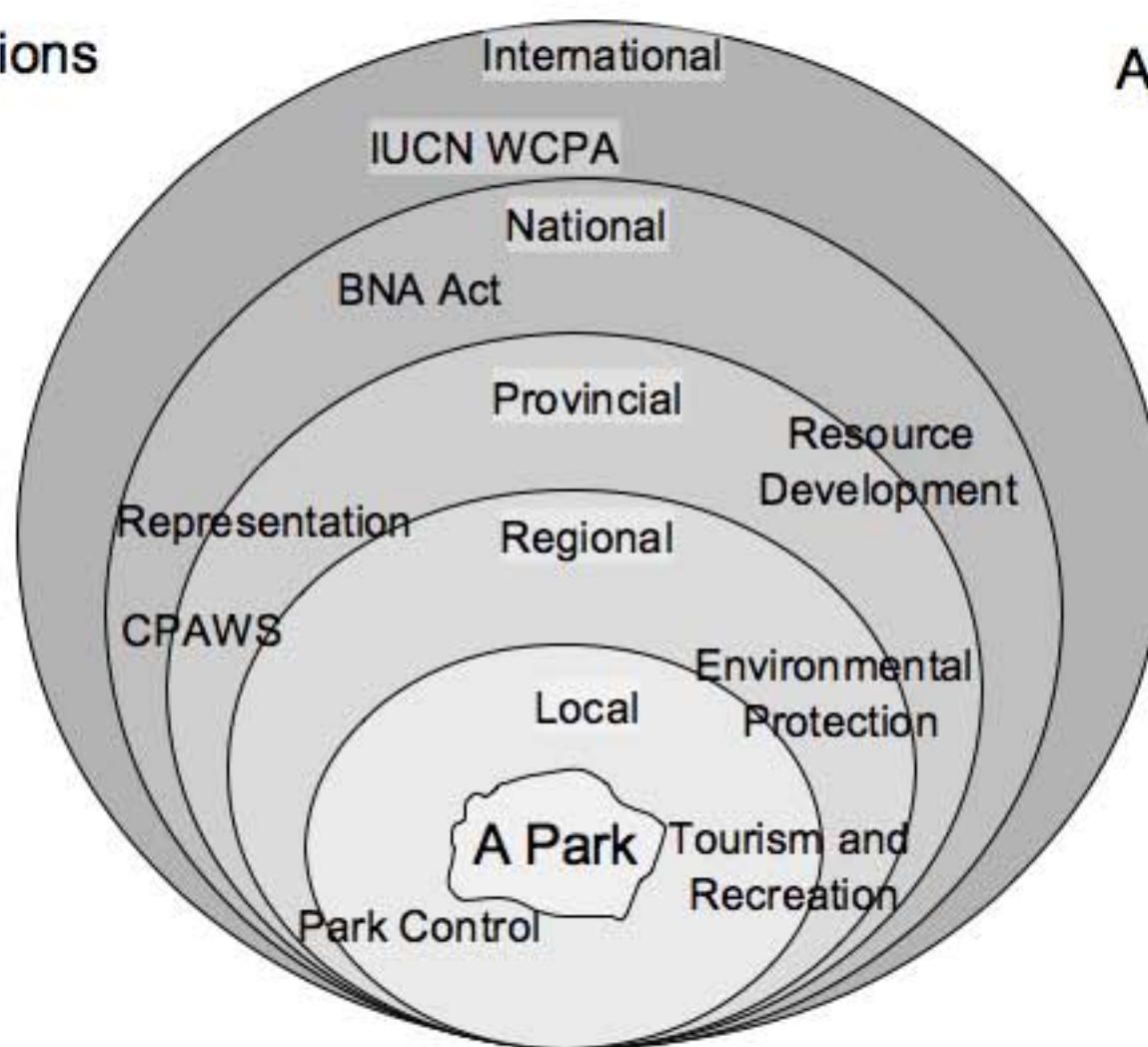


Figure 1 - Canadian Protected Areas Context circa 1968, illustrating the interactions of key concepts, activities, and institutions at multiple scales

Institutions

Activities

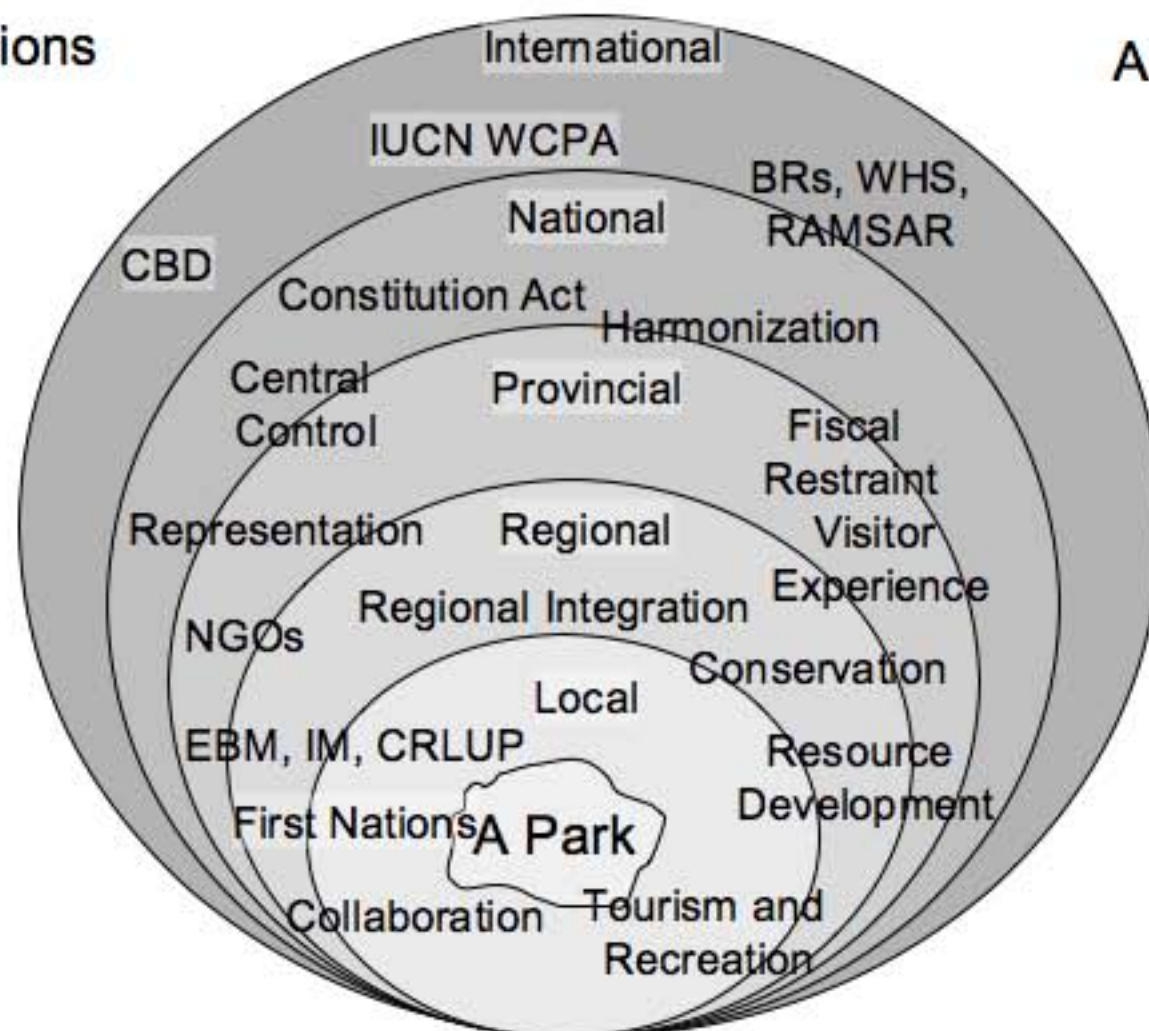


Figure 2 - Canadian Protected Areas Context circa 2008, illustrating the interactions of key concepts, activities, and institutions at multiple scales

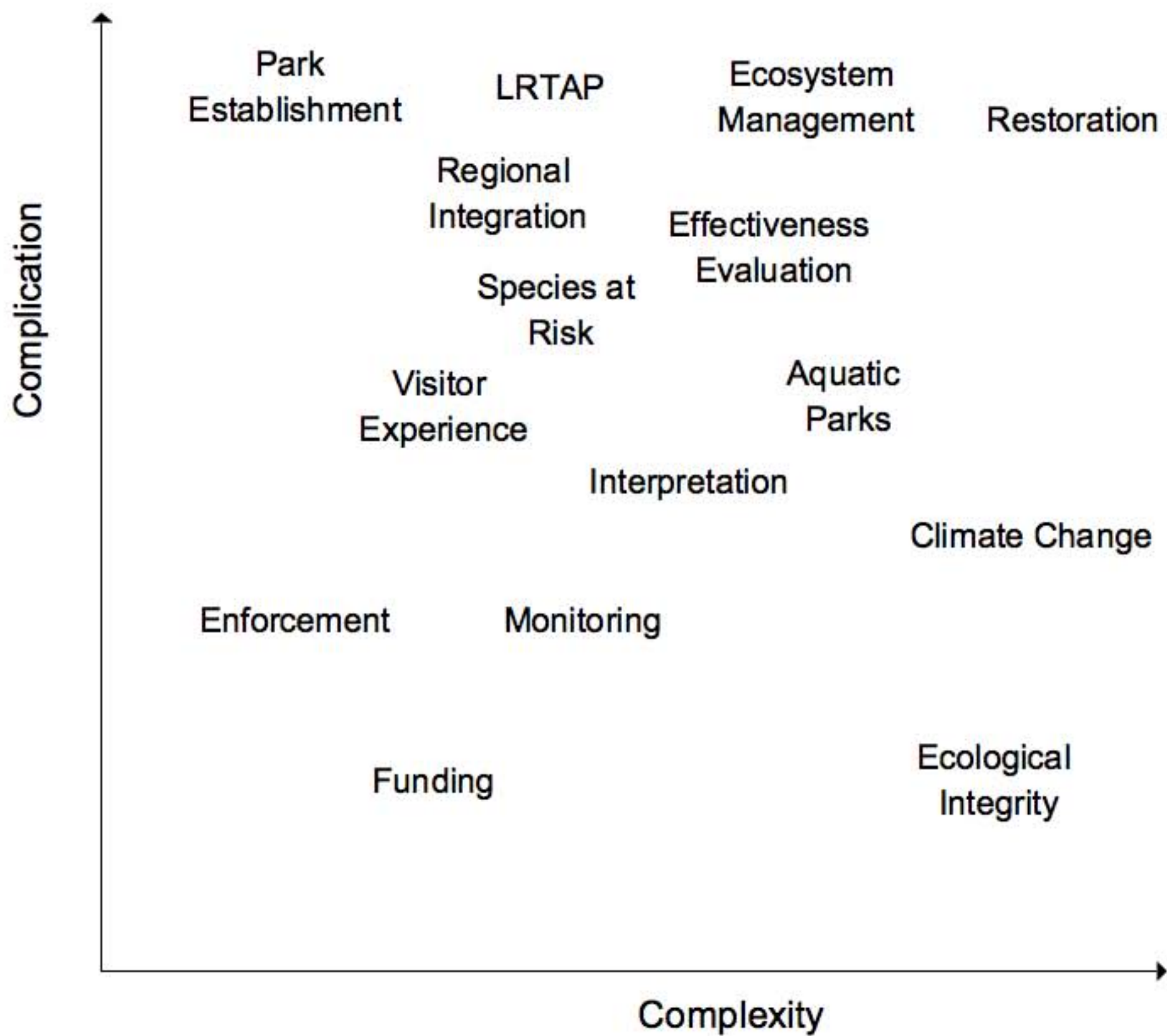


Figure 3 - Illustrative ordering of some protected areas challenges and activities in terms of their relative complexity and complication.