

# INTEGRATING VISITATION DATA WITH THE WORLD DATABASE ON PROTECTED AREAS: BACKGROUND AND JUSTIFICATION

*Paul F. J. Eagles, Ph.D., University of Waterloo, Canada*  
*Yu-Fai Leung, Ph.D., North Carolina State University, USA*  
*Michael A. Schuett, Ph.D., Texas A & M University, USA*  
*Peter Fredman, Ph.D., Mid-Sweden University, Sweden*  
*Jack Carlsen, Ph.D, Curtin University, Australia*

IUCN/World Commission on Protected Areas  
Tourism Task Force  
Draft 5 May 2010

## **Purpose**

The World Conservation Monitoring Center, a branch of the United Nations Environment Program and based in Cambridge UK, maintains the World Database on Protected Areas. This is the most comprehensive global dataset of marine and terrestrial parks and protected areas available. It is a joint venture of UNEP and IUCN, produced by UNEP-WCMC and the IUCN World Commission on Protected Areas (IUCN-WCPA) working with governments and collaborating NGOs. The dataset stores key information about protected areas such as name, designation or convention, total area (including marine area), date of establishment, legal status and IUCN Protected Areas Management Category. It also stores the spatial boundary and/or location. Currently, the data set does not contain information of the visitor use of the world's parks and protected areas, a major deficiency.

This brief summary describes the background, justification and value of integrating visitation data into World Database on Protected Areas.

## **Background and Justification**

The amount of visitor use of a park or protected area is as a basic piece of information that is necessary to gain an understanding about any protected area. Visitor use in the form of recreation, tourism or ecotourism is an essential way to securing sustainable finance and public support of protected areas. Both public support and sufficient finance are critical if these areas are to fulfill their role in biodiversity conservation.

The mission of IUCN is to establish a representative system of protected areas and to build capacity for and improving effective management of these areas. Currently, this mission is approached mainly through several global initiatives such as Sustainable Financing, Management Effectiveness and CBD Programme of Work (Emerton et al. 2006; Hocking et al. 2000). Visitation data underpins each of these initiatives, as described below.

Specifically, all economic impact or benefit calculations must start with visitor use data, including the global economic impact study on which the WCPA Sustainable Financing Group is working (Emerton et al. 2006). The positive role of tourism in generating revenue for biodiversity conservation is recognized by CBD (UNEP 2006). Including visitation data in WDPA would provide readily available data for economic evaluations and related research. Such data would be very valuable for understanding tourism

trends in protected areas. It would enable comparative measures between and amongst park systems and countries, regions and park type. It would enable the integration of visitor use data into other data sets, for example regional economic development, land use change, biodiversity, etc.

There are other benefits as well including promoting stakeholder involvement in management, community-based conservation, conservation education, visitor education, philanthropy, increased government funding of protected area mgt., etc. Ultimately, this type of knowledge may help to reduce poverty and promote regional peace.

On the other hand, visitor use, if not planned and managed appropriately, can induce adverse ecological and social effects to protected areas, compromising its effectiveness in biodiversity conservation. Indeed, undesirable visitor impacts have been identified as one of the common threats to biodiversity (UNEP 2006). Integrating visitation data in WDPA would allow an efficient evaluation of the intensity and patterns of visitor use as a threat at national, regional and global levels. It would also help justify the formulation of public use policies and associated planning and management strategies for reducing negative visitor impacts and encouraging positive visitor impacts. Accurate visitor use data is necessary for all planning and management activities.

Several components of the Management Effectiveness Framework (Hocking et al. 2000) benefit from the availability of visitation data. It provides important contextual information for evaluating the *planning, inputs (e.g., resources, budget, and staff), process, outputs (visitor facilities, commercial tourism) and outputs (economic, social, educational benefits) variables.*

The Tourism Task Force of IUCN/WCPA has long recognized the importance of visitor use data and has been identifying ways to develop a global database of park use. As a key part of these efforts, a guideline for public use measurement and reported was developed by Hornback and Eagles (2000). This guideline was designed to provide a common standard for all data collection and management processes in parks and protected areas. Eagles, McLean and Stabler (2000) used published park use data to reveal that in the USA and Canada alone there were over 2.6 billion visitor days of park use in the year 1996. Furthermore, more recent pilot tests in the USA were conducted to evaluate the availability and quality of visitor use data if they are to be integrated into WDPA (Robinson et al. 2005). It has been a long term goal of the Tourism Task Force that such an effort should be expanded globally and be coordinated with the WCMC. In fact, this effort was approved by the WCPA Steering Committee in 2002. The Task Force had an agreement for the collection of such data during the last data collection for the UN List of National Parks and Protected Areas in 2003. The WCMC has recognized the value of such data collection, but needed addition resources to carry out the project.

### **Data Need and Approaches**

There are two possibilities for a coordinated, global data collection system coordinated by the World Conservation Monitoring Center. One is a basic level, which collects only the most basic data. The other is more advanced, where several data fields would be requested.

At the most basic level, one new data field would be added to each protected area in the global database. This field would contain the number of visitor days of recreation that occurred in the protected area in the last year of data collection. The goal would encourage all countries to collect these data regularly and report annually. Before visitation data reporting methods are standardized to a satisfactory level, an additional data field may also be needed, which is the specific reporting method for generating visitation statistics (e.g., visits and visitor days). From this, researchers can calculate national and international use levels. In concert with the Sustainable Finance Task Force, we can do global economic impact estimations.

At a more advanced level, several fields could be added to the global data base.

- 1) The number of visitor days of recreation that occurred in the protected area in the last year of data collection.
- 2) The year of the data collection.
- 3) Information of the type of data, i.e., visitor days, visits, entrants, etc.
- 4) The type of information data collection, such as ticket sales, road counter, visitor register, etc.
- 5) The number of exclusions, such as staff entrances, concession business traffic, etc.
- 6) The budget of the park in the last year.
- 7) The income of the park from tourism fees and charges
- 8) The budget of the entire park agency.

These suggestions are made for discussion.

Specific technical arrangements of how such integration could take place effectively and efficiently will be determined through continual dialogue between the Tourism Task Force, WCMC and other interested parties. The following are some suggested first steps in exploring the integration of visitor use data into WDPA:

- ✚ A feasibility study of integrating visitation data into WDPA
- ✚ Pilot testing in selected regions (e.g., N. America, Nordic Countries and Australia/NZ)
- ✚ Identification of current issues and constraints of visitor use data for protected areas
- ✚ Collection and inclusion of currently available visitor use data that are at good quality in the next release of WDPA
- ✚ Verification of other visitor use data that are available in electronic or hard-copy format.
- ✚ Review of the differences among visitation data reporting methods in order to formulate a more standardized way of data reporting in the future.
- ✚ Setting a target to have visitation data incorporated into WDPA in preparation for the 2013 World Parks Congress.
- ✚ Possible development on an online data input system so that agencies managers could input the visitor data directly into the global data base each subsequent year.

**Support Needed.** The tourism task force members have met with UNEP World Conservation Monitoring Center (WCMC) to solicit their support of this visitor data initiative. The WCMC Protected Areas Programme staff support in principle the value of getting visitation statistics into the WDPA and are willing to make an initial time investment. However, they face the difficulties of supporting an initiative that comes with no funding. As UNEP-WCMC staff members are required to cover nearly all of their time with a project management, Dr. Charles Besancon, Head of WCMC Protected Areas Programme, emphasized that the WCMC needs to have the additional costs covered with clear benefits in mind. In order to formulate and implement a feasible plan for this global initiative, the consultation activities of UNEP-WCMC, WCPA related Tourism Task Force members, and a select group of experts in this topical area is required for all aspects of the project.

We suggest that initially the project develop a comprehensive inventory of park tourism in selected regional areas. The three chosen would be North America (Canada, USA and Mexico), Scandinavia (Finland, Sweden, Norway, and Denmark), and Australia/New Zealand. These regional areas have advanced tourism and visitation measurement systems and people who have expressed an interest in participating. The work in these areas would be the precursor and model for a global project.

A first phase project would require an estimated US \$2,000,000. This amount would enable the development of a complete database for the three case study areas. It would require revision of the current global data base so as to accept visitation data. It would develop all the procedures and technologies necessary for the global park visitation and tourism inventory. The funds would cover personnel, computer servers, communication equipment, office expenses and data collection procedures. We propose that the projects be operated at selected universities in the three regions (US-Canada, Scandinavia, and Australia-NZ) with electronic links to the WCMC in the UK.

If successful, this first phase would be used as the basis to develop a global inventory. Ultimately the goal is to have the first ever global inventory of park tourism and visitation data clearinghouse available for the next World Parks Congress in 2013.

### **Request**

At the June 2010 Steering Committee meeting of the World Commission on Protected Areas we would like approval in principle on this initiative. This approval would enable the Tourism Task Force to work with the WCMC in moving this initiative forward.

### **References Cited**

Eagles, Paul F. J., Daniel McLean and Mike J. Stabler. 2000. Estimating the Tourism Volume and Value in Parks and Protected Areas in Canada and the USA. *George Wright Forum* 17(3): 62-76.

Emerton, L., Bishop, J. & Thomas, L. (2006). *Sustainable Financing of Protected Areas: A Global Review of Challenges and Options* (Best Practice Protected Areas Guidelines Series No. 13). Gland, Switzerland: IUCN World Commission on Protected Areas.

Hockings, M., Stolton, S., & Dudley, N. (2000). *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas* (Best Practice Protected Areas Guidelines Series No. 6). Gland, Switzerland: IUCN World Commission on Protected Areas.

Hornbeck, K. E., & Eagles, P. F. J. (1999). *Guidelines for Public Use Measurement and Reporting at Parks and Protected Areas* (Cambridge, UK: IUCN Publications Services Unit.

Robinson, J., Leung, Y.-F., & Eagles, P. F. J. (2006). Making your visitors count: Collecting and archiving visitation data in U.S. protected areas. In Harmon, D. (ed.), *People, Places, and Parks: Proceedings of 2005 George Wright Conference on Protected Areas* (pp. 236-241). Hancock, MI: George Wright Society.

UNEP (2006). *Convention on Biological Diversity: Review of implementation of the Programme of Work on Protected Areas for the Period 2004-2006*. Document UNEP/CBD/COP/8/29.