

---

United Nations Environment Programme  
World Conservation Monitoring Centre (WCMC)

# Protected Planet

## The Protected Areas Portal

Data Standards for the World Database  
on Protected Areas

BETA VERSION 1

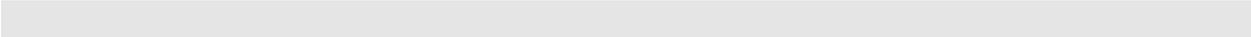
January 2010



UNEP



WCMC



**Copyright © 2010 UNEP-WCMC**

**Disclaimer:** The contents of this report do not necessarily reflect the views or policies of UNEP-WCMC or contributory organizations.

The UNEP World Conservation Monitoring Centre (UNEP-WCMC) was established in 2000 as the biodiversity assessment and policy implementation arm of United Nations Environment Programme (UNEP). The roots of the organisation go back to 1979, when it was founded as the IUCN Conservation Monitoring Centre. We are the custodians of the World Database on Protected Areas (WDPA), a joint project with IUCN (International Union for Conservation of Nature) and their World Commission on Protected Areas. The WDPA is the only global database of marine and terrestrial protected areas, comprising GIS spatial data and attribute data, in existence. It is used to report the progress towards targets such as United Nations (UN) Millennium Development Goal 7, the Convention on Biological Diversity (CBD) and the UN List of Protected Areas as well as providing support to policy and decision managers.

‘Data Standards for the World Database on Protected Areas’, was prepared by the WDPA Team, Protected Areas Programme, UNEP-WCMC. This document paper provides a brief synopsis on the minimum data requirements necessary for immediate and effective global monitoring of protected areas.



**Contact Info:**

WDPA Content Officer

UNEP-World Conservation Monitoring Centre (UNEP-WCMC)

219 Huntingdon Road, Cambridge CB3 0DL, UK

Tel: +44 1223 814355; Fax: +44 1223 277136

Email: [protectedareas@unep-wcmc.org](mailto:protectedareas@unep-wcmc.org) URL: <http://www.unep-wcmc.org>

**Please Cite As:** UNEP-WCMC. 2010. Data Standards for the World Database on Protected Areas, UNEP-WCMC.

# WDPA Data Standards for Global Interoperability

## Section 1: Overview

The World Database on Protected Areas (WDPA) is the only global database of both marine and terrestrial protected areas. As such, the past two decades of its development have been centrally focused on obtaining and disseminating protected areas data for the global community. The WDPA is a joint venture by UNEP-WCMC and IUCN World Commission on Protected Areas in collaboration with governments, Non-Governmental Organisations, academia and industry.

*Our aim is a common standard to allow the sharing of protected areas data between organizations, countries and industry ultimately resulting in a globally complete and accurate dataset for protected areas.*

There is a global priority to ensure that there is up-to-date and accurate information on protected areas. This is critical as protected areas provide powerful evidence of a nation's commitment to conservation and sustainable development and provides the framework for national reporting. The primary focus of the WDPA is the collation of the UN List of Protected Areas, an initiative mandated through the UN General Assembly (1963). For a complete list of our mandates please refer to the 'WDPA Mandate Document' included in the WDPA submissions packet.

The purpose of this document is to define the protected areas data standard and to address the conditions of submitting data to the WDPA. **Any person wishing to submit data to the WDPA will be required to sign and agree to the WDPA terms and conditions of use.** Please refer to the terms and conditions included in our data submissions packet or on-line at: <http://www.wdpa.org/TermsAndConditions.aspx>.

### QUESTIONS & ANSWERS



**Q.: Does My Data Meet the WDPA Standard?**

**A.:** For inclusion in the WDPA data submissions must meet the following requirements:

- 1) All protected areas must fit the IUCN definition of a protected area,
- 2) The data must be spatial
- 3) The 'minimum' attributes for each protected area must be included (Table 1).
- 4) Source information must be provided for both spatial and attribute data (Table 2).

**1.1** Any protected area submitted to the WDPa must conform to the IUCN definition of a protected area, given herein:

**Definition** “A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.”—Dudley, N. (Ed.) 2008<sup>2</sup>

**1.2.** The WDPa contains both spatial (i.e., boundaries) and attribute (i.e., information) data about protected areas. The spatial boundaries of protected areas in the WDPa are represented by ArcGIS shapefiles in polygon format. Where boundary data is unavailable, a geographic location (latitude and longitude) can be given as a reference point for the protected area. **A data submission will only be accepted if a geographic location is provided, preferably as a spatial boundary.**

**1.3.** **Attributes** represent essential pieces of information about the spatial data that aid in the analysis, reporting and tracking of trends in the growth and coverage of the world’s protected areas. In the WDPa, the attribute data are divided into ‘*minimum*’, ‘*core*’ and ‘*enhanced*’. See Table 1. A dataset will be considered complete in the WDPa if it has spatial boundaries and all WDPa attributes. **A data submission will only be accepted if the minimum attribute information is provided.**

**1.4.** UNEP-WCMC recognises the importance of recording accurate source information (metadata) in the WDPa to ensure that ownership of the data is maintained and is traceable. WDPa metadata will conform to minimum geographic information and services standards as described by the International Organization for Standardization (ISO). See Table 2. When submitting data to the WDPa, the provision of accompanying metadata is mandatory. Sources of data may vary for multiple polygon datasets or even attributes, therefore it is important that we record this information in as much detail as possible down to site and if possible attribute level. **A data submission will only be accepted if the minimum source information is provided.**

Guidance and definitions on the requirements can be found on pages 6 & 7. Table 1 should be used as a reference for completing and understanding attribute requirements and Table 2 for source requirements. Should you have any further questions about the formatting or requirements given herein, please do not hesitate to contact the WDPa Team at UNEP-WCMC:

National Governments  
Arianna Granziera  
WDPa Content Officer  
[Arianna.Granziera@unep-wcmc.org](mailto:Arianna.Granziera@unep-wcmc.org)

NGO’s and International Conventions  
Amy Milam  
WDPa Content Officer  
[Amy.Milam@unep-wcmc.org](mailto:Amy.Milam@unep-wcmc.org)

---

<sup>2</sup> Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. X + 86pp.

## Section 2: WDPA Data Standards

**2.1 Setting a Standard** All attribute information should be provided in Latin characters except for Original Name, which can be provided in the Original language and characters of the official designation/decreed documentation. There are a total of 20 attributes associated with all protected areas in the WDPA. These are illustrated in Figure 1. As previously described, these 20 attributes are divided into ‘*minimum*’, ‘*core*’ and ‘*enhanced*’.

**2.2 Minimum Attributes** A ‘*minimum*’ attribute represents information that is required with any spatial data set to be integrated in the WDPA. There are 11 minimum attributes in the WDPA. **New data submissions will only be accepted if these minimum attributes are complete per protected area.** Please note that the WDPA-ID & WDPA Parent ID fields are a minimum field assigned by UNEP-WCMC in the first instance (see Table 2 and Section 3.1 for further guidance).

**2.3 Core Attributes** A ‘*core*’ attribute represents any information that is considered a priority for analysis and reporting on protected areas and therefore are a priority for integrating in the WDPA. There are a total of 16 core attribute fields, including the required minimum attributes. These core fields taken together significantly enhance the capacity to conduct thorough analysis. Data providers are encouraged to submit this information in addition to the minimum required attributes.

**2.4 Enhanced Attributes** An ‘*enhanced*’ attribute represents information that is currently considered supplementary, specialized or difficult to obtain but nevertheless have been identified as a key parameter. Information on management and governance of protected areas can provide the legal backing to assigned IUCN categories.

**2.5 A Complete Dataset** For a dataset to be considered complete in the WDPA, all additional core and enhanced attributes should be completed. With a complete dataset, a protected area’s role in the context of the global protected areas network can be fully assessed and understood. Data providers should strive to provide a complete dataset when submitting to the WDPA

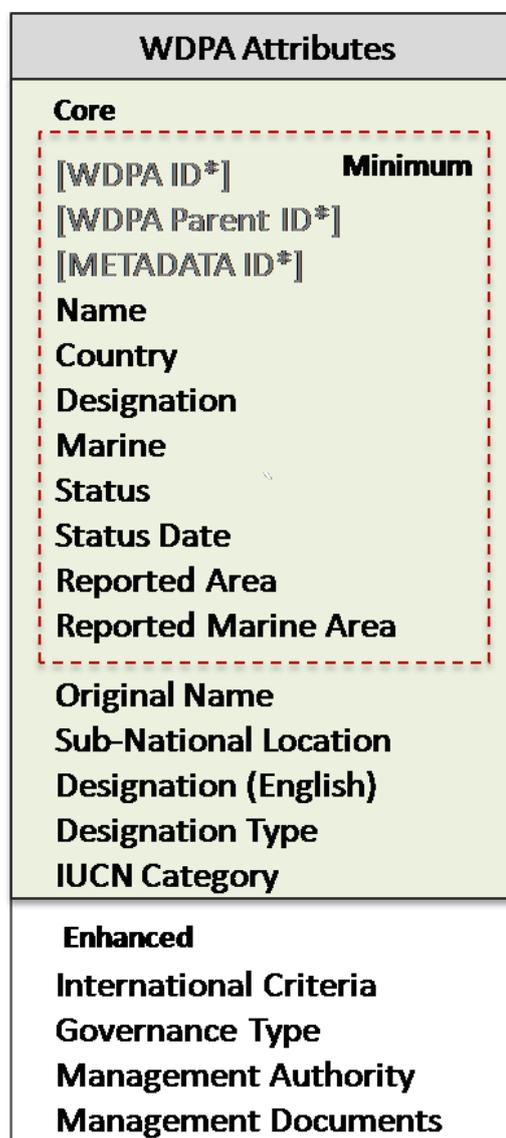


Figure 1: WDPA Attributes divided by core, minimum and enhanced.

\*N.B. WDPA ID’s are assigned by UNEP-WCMC

Table 1: WDPA Attribute Fields defined and designated as Minimum (M), Core (C) or Enhanced (E).

Field Name	Full Name	Attribute Definition
WDPAID (Long Integer)	WDPA ID (M)	A unique identification number <b>assigned by UNEP-WCMC</b> . This is the same as Site_ID and Site_Code in previous versions of the WDPA. <b>If a protected area has already been assigned a WDPA ID it should be provided.</b>
WDPA_PID (Long Integer)	WDPA Parent ID (M)	<b>This ID only applies where zones exist within a protected area.</b> Each zone will have its own WDPA ID which will be linked to an overarching or 'parent' protected area through a Parent ID. The WDPA ID of the parent site will become a WDPA Parent ID.
NAME	Name (M)	The official name of the protected area provided in Latin characters (alphabet/symbols).
ORIG_NAME	Original Name (C)	The original name of the protected area in any character set supported by UTF 8.
COUNTRY	Country (M)	The country, territory or other administrative unit of geographical interest that a protected area jurisdictionally resides within, as given by its ISO 3166-1 alpha-3 code. This field should always be completed, but please also use sub-national location, if applicable, to further describe a protected areas location.
SUB_LOC	Sub-national Location (C)	The principle subdivision that a protected area geographically resides within, given by an ISO 3166-2 sub-national code, e.g. autonomous region, overseas territory, dependency, possession, etc. as long as it does not already have an ISO 3166-1 alpha-3 character code in which case it should be reported as a country.
DESIG	Designation (M)	The type of protected area as legally/officially established or recognised (e.g. national park, world heritage site) provided in Latin characters.
DESIG_Eng	English Designation (C)	The type of protected area as legally/officially established or recognized translated into English, where possible.
DESIG_TYPE	Designation Type (C)	Please write 'national' when providing information for nationally designated sites or 'international' when providing information for a protected area recognized under an international convention such as UNESCO World Heritage, UNESCO Biosphere Reserve or RAMSAR.
IUCNCAT	IUCN Protected Area Management Category (C)	In this field please report on the classification of IUCN Category (Ia, Ib, II, III, IV, V or VI) adopted for national protected areas. For reporting on international protected areas the option of listing 'Not Applicable' is fine. However all national sites should list a category or choose not to report on this field, if IUCN Categories have not been adopted.
MARINE	Marine (M)	Given by a '1' for True or '0' for False. Marine sites as defined for the WDPA, encompass any portion of the marine environment in whole or in part according to geographic location and management strategy.
REP_M_AREA	Reported Marine Area (km <sup>2</sup> ) (M)	<b>N.B.: Skip if Marine is '0' False.</b> Total marine extent of the protected area (square kilometres) as reported to UNEP-WCMC by the data provider. Contingent on the Marine field being True. .
REP_AREA	Reported Area (km <sup>2</sup> ) (M)	<b>Total</b> protected area extent, cumulative of both marine and terrestrial are as reported to UNEP-WCMC (square kilometres).
STATUS	Status (M)	Current legal or 'official' standing of the site (e.g. proposed, designated). WDPA no longer stores protected areas that have been degazetted (delisted) but please report any changes in status so that we can.
STATUS_YR	Status Year (M)	The year in which the current status was officially decreed.
GOV_TYPE	Governance Type(E)	A description of the governance structure of a protected area, conforming to the governance matrix described in the IUCN Guidelines on protected areas (see section.3.2.) Provided in Latin characters.
MANG_AUTH	Management Authority (E)	The organisation(s) or agency/ies responsible for management of the protected area. Provide in Latin characters.
INT_CRIT	International Criteria (E)	Applicable to international sites where a set of criteria is used to define the protected area designation type. For example, World Heritage Site criteria. Provide in Latin characters.
MANG_PLAN	Management Plan (E)	A reference to an official management plan for the protected area. This could represent a hyperlink to the document(s) on-line or a legal reference to where the documents can be found including the Title and Identifiable Numbering or Cataloguing system.
METADATAID	Metadata ID (M)	An ID assigned by UNEP-WCMC that is used to link WDPA source tables to WDPA shapefiles. Every protected area in the WDPA has associated source information in accordance with WDPA source information requirements.

Table 2: Source Information Requirements based on ISO Mandatory Metadata Standards

Title	Definition
Ownership/Authorship Entity	The organisation, consultancy, national government, private company or other entity that claims ownership/authorship of the data. If Authorship/Ownership is shared please complete two or more WDPa Metadata Tables reflecting the shared nature of the data.
Ownership/Authorship Contact E-mail	General e-mail that an interested user should use to contact the Ownership/Authorship Entity.
Responsible Party	Name of person providing data to the WDPa on behalf of the Ownership/Authorship Entity
Responsible Party Title	Job Title of person providing data to the WDPa on behalf of the Ownership/Authorship Entity
Responsible Party Contact E-mail	Contact e-mail of person providing data to the WDPa on behalf of the Ownership/Authorship Entity
Responsible Party Affiliation (if applicable)	If a data provider is an individual, please provide the affiliation (if any) to any organization, government, consultancy, private company or other entity.
Reference Date	Please post the date that the data was created or last updated. In other words, the date the data is current to. This field is very important in helping to assess the quality of the data.
Delivery Date	Please list the date that the data was delivered to UNEP-WCMC or uploaded to the WDPa.
Spatial Reference System	The Geographic Coordinate System and/or Projection the data was created in. This is important to account for any shifts in the data when transformed to the Geographic Coordinate System of the WDPa which is based on Geographic Coordinate System: World Geodetic Survey 1984..
Scale of the Dataset	If known, the scale of the dataset should be given as the scale that was used when the data was originally created. Scale gives an indication of the resolution of the data and therefore its accuracy.
Lineage	Please describe any known history of how the data was created and describe any updates to the data.
Language	Original language of the dataset (before translation into English or transliteration into Latin characters).
Language Character Encoding	If known, please provide the language character encoding originally associated with the data. Please provide the data in UTF-8. Coordination of language character encoding is the responsibility of the data provider.

### Section 3: Supporting Guidance

**3.1** Once a protected area has been assigned a WDPa ID, it should be provided with all subsequent updates to the WDPa for that protected area. A WDPa Parent ID applies only on the condition that a protected area has zones that are also stored in the WDPa. Each zone will have its own WDPa ID and will link to the WDPa ID of the overarching or 'parent' protected area. The WDPa ID for the 'parent' protected area will then become a WDPa Parent ID for each of the associated zones. For assistance with WDPa IDs please contact [protectedareas@unep-wcmc.org](mailto:protectedareas@unep-wcmc.org)

**3.2** Governance is a description of the decision-making structure of a protected area and should describe where the decision-making power of delegating management authority rests. The governance of a site legally sets out the authority responsible and accountable for managing the protected area. Reporting on governance type as well as management authority will greatly enhance comparisons of protected areas and their management effectiveness.

The information provided on governance should conform to the Governance Matrix as set out and described by IUCN Protected Area Guidelines<sup>3</sup>. IUCN distinguishes four broad protected areas governance types each with three sub-types which can be visualised on the following page (Table 3).

*Table 3: IUCN Governance Matrix for Protected Areas*

Governance Type	Governance Sub-Type
<b>Governance by Government</b>	Federal/National Agency in charge
	Sub-National Agency in charge
	Government Delegated (e.g. to an NGO) Management
<b>Shared Governance</b>	Transboundary Management
	Collaborative Management (Various Forms of Pluralist Influence)
	Joint Management (Pluralist Management Board)
<b>Private Governance</b>	Individual(s)
	Non-for Profit Organisation (e.g. NGO, University)
	For Profit Organisations (e.g. Corporate Owners, Cooperatives)
<b>Governance by Indigenous Peoples and/or Local Communities</b>	Indigenous Peoples
	Community Conserved Areas/Local Communities

This matrix attempts to sort and catalogue protected areas to facilitate an understanding of site governance. However, UNEP-WCMC and IUCN recognise a range of governance scenarios and acknowledges the complexity of identifying and reporting the governance type for a protected area. For some protected areas there may be multiple governance types that are applicable. “In other words, the land, water and natural resources in any protected area can be owned and/or directly managed by governmental agencies, NGOs, communities, indigenous peoples and private parties – alone or in combination.” (Dudley et al., 2008)

### 3.3 Reporting on Governance to WDPA

For reporting to the WDPA please choose from the subtype(s) in the IUCN Matrix above that best fit the protected area and fill in the ‘Gov\_Type’ field accordingly. For example, if a site falls under ‘Private Governance’ and is declared and run by an individual, in the ‘Gov\_Type’ Field, please write: ‘Individual’. If a site has a shared governance type, in the ‘Gov\_Type’ field type, please write: ‘Collaborative Management’, ‘Transboundary’ or Joint Management accordingly.

In the case of collaborative management the data provider may also provide which collaborative forms of governance that are involved. For example, the subtypes Local Communities and Sub-National Agency in charge can also be written in the ‘Gov\_Type’ Field. In this example the field should look like Figure 2. Also because the field is open (not enforced by drop down menu’s) a data provider should, where applicable, provide additional terminology or comments that will help to accurately reflect their governance scenario.

<sup>3 3</sup> Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. X + 86pp.

An example of this would be Land Trusts in the U.S.A, a form of Private protected area with Federal accreditation incentives. In this example, the provider should list the sub-type 'Individual' and also 'Land Trust'. The emphasis here is on using the standard terminology to help support global reporting initiatives but with the added flexibility of reporting on exceptions to the rule.

For more information on the IUCN Governance Matrix please refer to the Guidelines for Applying Protected Areas Management Categories<sup>4</sup>. The guidelines can be found at: <http://data.iucn.org/dbtw-wpd/edocs/PAPS-016.pdf>

## Section 4: Zoning within Protected Areas

Some protected areas contain zones classified and mapped by law as having different management objectives than the protected area itself. For example, National Parks of the USA can contain wilderness areas which have a stricter management regime than the national park they reside in. At the international level Man and the Biosphere Reserves are often made up of core, buffer and sustainable use zones. The WDPA does contain zones and links them with the overarching or 'parent' protected area by a WDPA Parent ID (WDPA PID). Therefore, it is important where zones exist to submit the applicable spatial and attribute information for each zone in the same format expected as for the parent protected area.

The WDPA PID of a zone is the same as the WDPA ID of the parent protected area (See Figure 2). In this way any changes or specific information unique to a zone within a protected area, can also be tracked in analysis and reporting.

**The data submission requirements for zones will be the same as for protected areas.**

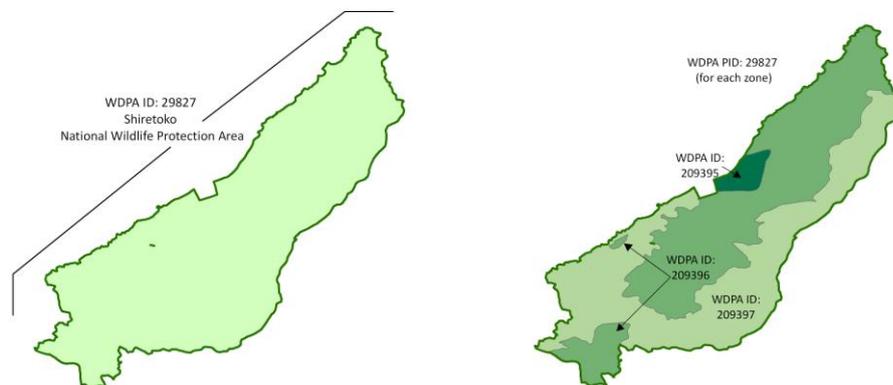


Figure 2: Example of how WDPA PID is used to link a zone with its overarching or 'parent' protected area.

<sup>4</sup> Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. X + 86pp. <sup>4</sup>