

Proteus 2011 Highlights

This report highlights activities carried out in 2011 as part of the Proteus Partnership Workplan.

The World Database on Protected Areas (WDPA) and protectedplanet.net

Overview of Updates to WDPA Data

In 2011, 40% of sites in the WDPA were reviewed or updated. The January 2012 monthly release of the WDPA shows a current total of 187,501 sites, 88% of which include boundary data.

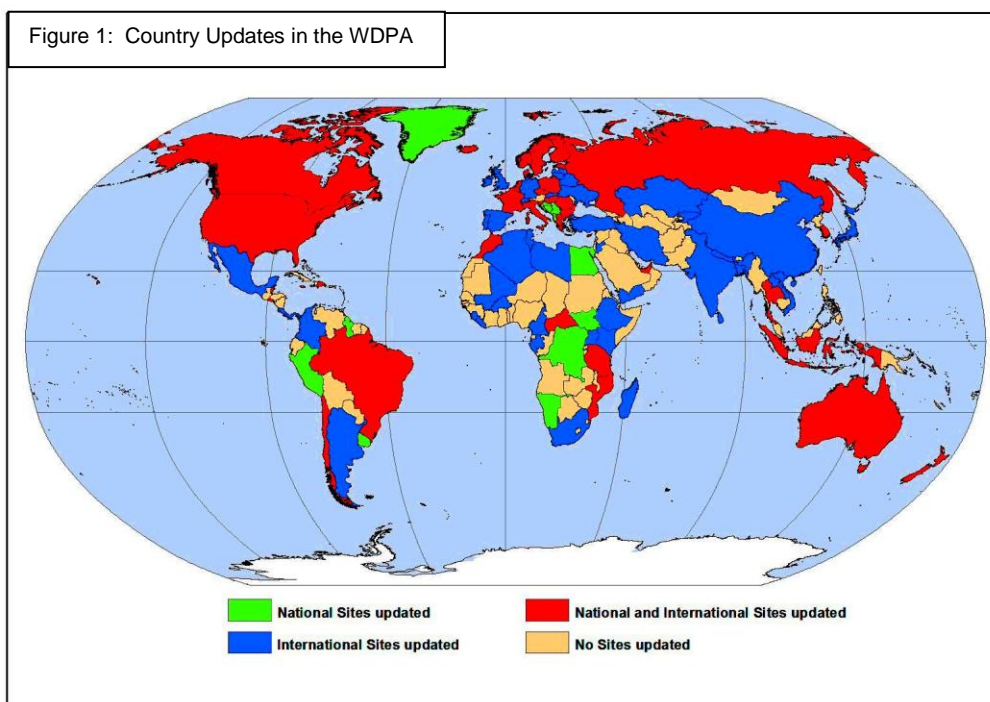
During the last calendar year, there were 39,762 new Protected Areas added to the WDPA, an increase of 26% on the dataset size in 2010. 38,342 of these are represented by boundary data, while 1,420 are represented by point locations. Of these new sites, 25,873 are Natura 2000 sites, made available to Proteus Partners for the first time.

A further 35,255 Protected Areas were updated in 2011. Of these, 33,430 had boundary and attribute data updated or verified, including 1,825 which had previously been represented only as point locations. The remaining 3,083 updated records were represented by point locations.

In addition to adding new records and updating existing records, 5,287 records were removed in 2011 after receiving confirmation that they represented degazetted Protected Areas or invalid sites that did not represent a true Protected Area according to the IUCN definition.

Country Updates

WDPA updates in 2011 have been made to 105 countries. The status of those updates (whether they are improvements to national protected area data, international protected area data or both) is shown in Figure 1 below. Those countries for which data have not been reviewed and updated in 2011 are also indicated.



Further details on the updates to the countries that have undergone review within the WDPA in 2011 are shown in Appendix A. The WDPA 2011 Global Quality Assessment results are shown in Appendix B.

Updates to Regional Data

In addition to working with individual countries, the WDPA team continued to negotiate with a number of data providers at regional and international levels. These dialogues have resulted in four significant updates of relevance to Proteus Partners:

- **Arctic Protected Areas:** The Conservation of Arctic Flora and Fauna (CAFF) is the biodiversity working group of the Arctic Council. Their Arctic dataset has been updated through CAFF activities and has received verification from each of the Arctic Council Countries. These data are undergoing a complete reconciliation with the WDPA.
- **Natura 2000 sites within Europe:** Natura 2000 sites have now been included in the WDPA for the first time. As the first version of Natura 2000 to be available in the WDPA, the data has undergone significant reformatting by UNEP-WCMC to match the WDPA schema. Work has been ongoing over several years with the European Commission, who first had to seek approval from all Member States for the production of a public database prior to its integration into the WDPA. This is a highly political dataset bound by EU law and so it is vital that approval of the dataset is received from the European Commission before the data are made available publicly. The end-of-2010 Natura 2000 dataset in the WDPA schema is awaiting this final approval from the European Commission. While approval is being sought, data will continue to be available to Proteus partners on a preliminary basis.
- **Natural and Mixed World Heritage sites:** These sites are being updated as part of a secondment to the WDPA team from IUCN. Attribute information for all 211 World Heritage Sites has been updated or verified as a result. Updates to spatial data were also made, with 17 World Heritage Sites previously represented as points now replaced with polygons and 4 newly inscribed World Heritage Sites added to the WDPA as polygons.
- **Ramsar sites:** Through a Memorandum of Understanding with the Ramsar Secretariat, we are working with both Ramsar and Wetlands International to create a complete boundary dataset for all Ramsar sites. This dataset is now represented in the WDPA. However, the majority of Ramsar sites are currently represented as point locations only. Updating to polygons requires a great deal of collaboration from the Member States to access digitised boundaries and list those boundaries in the WDPA. Several countries have submitted their Ramsar boundaries directly to the WDPA which has resulted in 15 new and 326 updated boundaries, including 32 that were previously point locations in the WDPA.

Improving Data Contacts

The WDPA team has been working to improve data contacts across a number of priority countries, particularly those where WCMC has not historically had good contacts to provide data. This work has led to improved data access and a number of new country updates in 2011.

Of particular note is work undertaken to improve relationships in two regions – South America and West Asia. UNEP-WCMC's relationship with the Inter-American Biodiversity Information Network (IABIN) is of strategic importance to updates in South America and this relationship was strengthened in 2011. This has both improved the quality of, and access to, these datasets. In partnership with the Organisation of the American States, several completely updated datasets have now been received and are being integrated into the WDPA.

West Asia is one of two regions with the poorest data in the WDPA and it has proven particularly challenging to establish and maintain data contacts in the 13 countries / territories that make up this region. In May 2011, UNEP-

WCMC attended the IUCN Regional Conservation Forum for West Asia in Kuwait, which brought together representatives of both government and non-government organizations in the region. The meeting was of strategic importance to UNEP-WCMC's relationships with data providers in Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, UAE, and Yemen. Furthermore, UNEP-WCMC agreed with IUCN's regional office to address the apparent data gaps through a future capacity building project in the region, and suggested that work on improving and exchanging protected area information is given higher priority in the IUCN West Asia Regional Strategy for 2013-2016.

All of our established partnerships are still thriving and we continue to reap the benefits of both formal and informal partnerships with several protected area agencies in both governmental and non-governmental organisations, including ASEAN Centre for Biodiversity, Birdlife International, Conservation of Arctic Flora and Fauna, Conservation International, The European Environment Agency, The Inter-American Biodiversity Information Network, International Union for the Conservation of Nature, The Nature Conservancy, World Commission on Protected Areas and WWF.

Red List Integration with the WDPA

In December 2011, IUCN and UNEP-WCMC participated in a coding workshop to integrate the IUCN Red List of Threatened Species and the WDPA. This means that from February 2012, users of protectedplanet.net will be able to view a list of endangered species potentially found within a protected area. The analysis was conducted by overlaying the species range distributions of Mammals and Amphibians with the WDPA. This is a huge step forward in the technical and political merging of the two most important global conservation datasets. IUCN is working through a process in order to make its Red List data available for commercial use.

Management and Strategic Planning of the WDPA

Significant attention has been given to the ongoing management of the WDPA, and strategic planning for protectedplanet.net. UNEP-WCMC has engaged with a number of stakeholders, including IUCN and its members, the Convention on Biological Diversity Secretariat and the Director of Google Maps and Google Earth. The purpose of these activities is to further partnerships with both data contributors and technology partners, improving access to the data and technology needed to ensure the WDPA and protectedplanet.net remain high-quality resources.

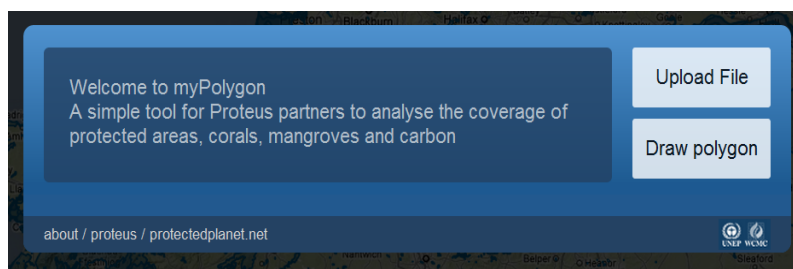
Functionality of Protectedplanet.net

A substantial amount of development effort has been invested in improving the functionality of protectedplanet.net in three key areas:

- An upload tool is now available which allows authorised data providers to add data directly into protectedplanet.net, helping to reduce the bottleneck for adding new data to the WDPA.
- Improved admin tools have been created for reviewing the protected area community edits. These will help to get data online quicker than was previously possible.
- Almost twenty further improvements to the functionality of the overall site have also been made, ranging from fixing links and minor glitches, to addressing a bug which destabilised the interface and caused it to crash. Many of these improvements have been made specifically in response to comments from users, including the Proteus Partners.

Launch of myPolygon

The prototype myPolygon tool provides rapid analysis of the overlap of a user-defined polygon with protected areas and other biodiversity data, and was designed exclusively for the Proteus Partnership, in response to requests for a simple, online interface with biodiversity data. As demonstrated at the Proteus Annual meeting in July 2011, a beta version of myPolygon is now operational. Proteus Partners have received a factsheet on the tool and are invited to provide feedback to help guide future development. The prototype tool is available online at <http://mypolygon.unep-wcmc.org/>.



Data on Sites of Importance for Biodiversity

Launch of the New IBAT Interface

An updated version of IBAT was released at the end of September 2011, featuring a host of new content and improved mapping tools. The datasets in IBAT have been refreshed, with the following notable updates:

- WDPA version for July 2011, now includes the entire set of Natura 2000 sites.
- Key Biodiversity Areas (KBA) data updated for all countries.
- An updated set of Alliance for Zero extinction (AZE) sites, most of which are now represented by polygon rather than point data.



The download section of the application has been extensively modified and will be serviced through its own page (rather than through the map). This will now also include downloads for a number of global datasets that subscribers have been requesting – Conservation International's Hotspots and High Biodiversity Wilderness Areas and BirdLife International's Endemic Bird Areas (EBA). The news section has also been greatly improved and will now be updated regularly with important developments relating to the data, new protected areas and other relevant items.

The new look IBAT interface is available through the usual URL: www.ibatforbusiness.org and login details remain unchanged.

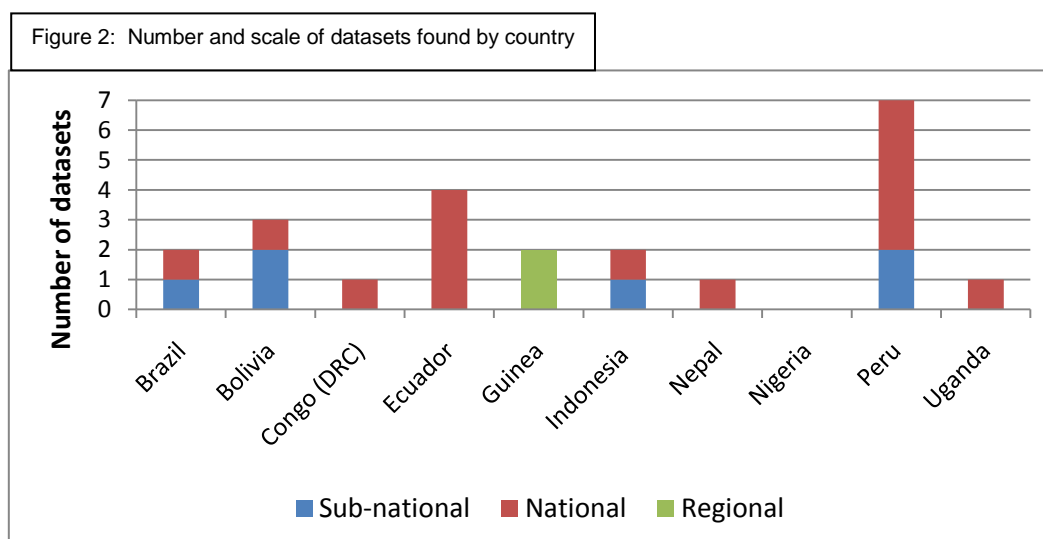
Integration of the IUCN Species Layer in IBAT

The IUCN Red List species grid layer has been made fully available in IBAT. Compiled by overlaying the range maps of all Critically Endangered, Endangered, Vulnerable and Near Threatened species from the IUCN Red List of Threatened Species, this new spatial layer allows the user to select any area on the map and display a list of species that potentially occur within a specific grid with their threat status. The list of species includes links to the detailed species accounts on the Red List website. The species grid layer found in IBAT for Business is derived directly from the species distribution maps produced as part of each individual Red List assessment. Currently, the IUCN Red List data is not downloadable, but IUCN is working on the necessary legal and institutional issues.

National Data Pilot Study

Under the Convention on Biological Diversity's (CBD) Programme of Work on Protected Areas, countries have been encouraged to identify their conservation priorities and develop plans for addressing them, many of which include increasing the number of protected areas. Some countries have undertaken an ecological gap analysis to assess the extent to which a protected area system meets the country's biodiversity protection goals. In some cases, this has led to the identification of national priority areas for conservation that could complement global data on areas of importance for biodiversity and conservation.

UNEP-WCMC carried out a feasibility study to contribute to discussions on the development of a global database on national biodiversity data. The feasibility study considered 10 countries and looked at total number of conservation and biodiversity datasets available globally for each country versus national datasets available. The national level datasets are varied in the underlying data (vegetation, species, threats, etc.) and criteria (irreplaceability, vulnerability, etc.) used for their generation. Figure 2 below shows the number and scale of the datasets found for each country (23 datasets available in total, 8 of these national).



This exercise clearly showed that national conservation priority datasets are available, with varying national significance. The development of a global database of national biodiversity priorities would provide extremely useful information for corporate and other decision-makers operating in different countries as these sites are often recognised within legislation and have different associated requirements.

Spatial Data on Coastal and Marine Ecosystems

Global Mangrove Data

Global mangrove spatial data has been acquired from the US Geological Survey (USGS). UNEP-WCMC assisted USGS to finalise the data layer, available at 30m resolution and classified from satellite imagery. This dataset will be made available through the Ocean Data Viewer in 2012. Negotiations also continue to allow access to the 2010 World Atlas of Mangroves data. UNEP-WCMC is performing comparative analyses of these two datasets to establish the level of spatial disparity at various global scales.

Improving Understanding of Available Marine and Coastal Data

Factsheets have been produced providing summary information on each of the marine habitat datasets held by UNEP-WCMC:

- Global distribution of Coral Reefs (2010)
- Global distribution of Mangroves (1997)
- Global distribution of Seagrasses (2005)
- Global distribution of Saltmarshes (2009)

These factsheets include information on data resolution, extent of coverage and source, as well as detail on their provenance, uses, advantages and limitations. They will be available to view and download from the Ocean Data Viewer in 2012.

New Model for Updating Marine and Coastal Data

To assist in UNEP-WCMC's management of marine and coastal habitat datasets, we have developed a new partnership model and technical approach to achieve continued and accelerated improvement of these datasets, with the aim of improving spatial and temporal resolution, as well as establishing and collating standardized measures of condition to enable more consistent assessments of these ecosystems.

Leveraging Interest in Carbon in Coastal Systems to Improve Data Quality

The carbon storage and sequestration potential of coastal ecosystems (such as mangroves, saltmarshes, and seagrasses) is an emerging issue in the field of climate change mitigation. This is providing an opportunity to leverage additional funds to improve coastal ecosystem data.

The Marine Assessment and Decision Support Programme at UNEP-WCMC have been working on this issue, co-hosting a workshop on related data needs with the Intergovernmental Oceanographic Commission (IOC) and publishing peer-reviewed literature on the subject.

Support to Proteus Partners

Proteus Partners Technical Assistance and Training

Proteus Partners continue to take advantage of the technical assistance available to meet their individual needs. Technical assistance, training and demos have been provided over webinars and/or face-to-face for Barrick Gold, BHP Billiton, BP, ConocoPhillips, eni, ExxonMobil, RioTinto, Shell, Statoil and Total, on biodiversity topics and the tools available to Proteus Partners. Typically lasting one hour each and tailored to the needs of the Partner organisation, these training sessions have helped to disseminate the array of data and tools available to companies within Proteus, building capacity both in the use of the tools and in understanding their relevance to biodiversity management. Training sessions have included the following subjects:

- Protectedplanet.net
- The World Database on Protected Areas (WDPA)
- Integrated Biodiversity Assessment Tool (IBAT)
- Ocean Data Viewer
- myPolygon
- A-Z of Areas of Biodiversity Importance
- The Convention on Biological Diversity (CBD)
- Biodiversity and the extractives industry
- Scenarios for the future of Protected Areas

Participant numbers in training sessions have ranged from small groups to in excess of 20 individuals, from varying backgrounds, including GIS, environment and engineering. The focus of the sessions was tailored to the interests of the individual companies and centred on different geographical locations. As a result of requests from Proteus Partners, work began toward the end of 2011 to develop longer full-day face-to-face training sessions. UNEP-WCMC is now in a position to develop bespoke training for individual Partners for delivery in 2012.

Support to Proteus Partners with Data Analysis and Interpretation

Ongoing support has been provided to Proteus Partners with their data needs. This has included data quality assessments, data verification and acquisition, and analysis and interpretation of biodiversity data.

UNEP-WCMC's expertise in biodiversity and related global data leaves us well placed to assist our Proteus Partners on issues relating to biodiversity management, as well as in the use of our data.

Partners needing further support in the use of UNEP-WCMC tools and data, training on biodiversity related issues, or assistance in data analysis and interpretation and biodiversity mapping should contact the Business, Biodiversity and Ecosystem Services Programme (businessandbiodiversity@unep-wcmc.org).

Appendix A: Data Updates to Countries Reviewed in the WDPA in 2011

Country	Complete or partial update to data held in WDPA ¹	National sites updated?	International sites updated?	Improvements to polygon data			Polygons replacing existing points	Improvements to point data		
				New to the WDPA	Updates to existing polygons	Polygons deleted		New to the WDPA	Updates to existing points	Points deleted
Albania	complete	✓	✗		53				23	
Algeria	partial	✗	✓					8		
Argentina	partial	✗	✓	1	1			2		
Australia	complete	✓	✓	446	6922		10			
Bangladesh	partial	✗	✓		1					
Belarus	partial	✗	✓		1			1		
Belgium	complete	✓	✓	2427	884		205			
Belize	complete	✓	✓	16	90	26			104	
Bermuda	partial	✓	✗		4					
Bosnia and Herzegovina	complete	✓	✗		3			2	28	
Brazil	partial	✓	✓	164	490	58	106	3		13
Bulgaria	partial	✓	✓	332				72	95	
Burkina Faso	partial	✗	✓					12		
Cameroon	partial	✗	✓					2		
Canada	partial	✓	✓	932	1345	2200	216			1732
Central African Republic	partial	✓	✓	1	1			1		
Chile	complete	✓	✓	100	114		19		1	71
China	partial	✗	✓				4	2		
Colombia	partial	✗	✓				1			
Congo, The Democratic Republic Of The	complete	✓	✗		43	1			3	
Costa Rica	partial	✗	✓					1		
Croatia	partial	✓	✗					184	44	
Cyprus	complete	✓	✓	61	17				4	
Czech Republic	complete	✓	✓	3388						
Denmark	complete	✓	✓	535	1789				207	
Dominican Republic	complete	✓	✓		84			1		
Egypt	complete	✓	✗	18	25	2	1			
El Salvador	complete	✓	✓	19	140	7		11	6	
Estonia	partial	✓	✓	565				37	990	1004

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Ethiopia	partial	x	✓	1	2					
Finland	complete	✓	✓	5256	5974		1	26		
France	partial	✓	✓	1753	1		2	1		
Gabon	partial	x	✓		1		1			
Germany	partial	x	✓	5280	1					
Greece	partial	✓	✓	419	2			1	41	
Greenland	partial	✓	x		2					
Guyana	complete	✓	x		2		1		1	12
Hungary	complete	✓	✓	523	62			2	69	
Iceland	partial	✓	✓		101					
India	partial	x	✓		2					
Indonesia	partial	✓	✓	51	66		2	2		
Iran, Islamic Republic Of	partial	x	✓					3		
Ireland	partial	x	✓	583						
Italy	partial	✓	✓	2550				6	1	
Jamaica	complete	✓	✓	75	58	21	8			9
Japan	partial	x	✓	1	1					
Jordan	partial	x	✓	1						
Kazakhstan	partial	x	✓	1			1	1		
Kenya	partial	x	✓	1						
Korea, Republic of	complete	✓	✓	241	52	4	31	5		
Kyrgyzstan	partial	x	✓					1		
Lao People's Democratic Republic	partial	x	✓					2		
Latvia	partial	x	✓	328				3		
Liberia	partial	x	✓	5				5		
Libyan Arab Jamahiriya	partial	x	✓		5					
Lithuania	partial	x	✓	482				1		
Luxembourg	complete	✓	✓	60					25	
Macedonia, the Former Yugoslav Republic Of	partial	✓	✓		1				50	
Madagascar	partial	x	✓					1		
Mali	partial	x	✓		1					

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Malta	complete	✓	✗	30	102		17			
Martinique	partial	✗	✓					2		
Mexico	partial	✗	✓		1		1	10		
Monaco	partial	✗	✓						1	
Montenegro	complete	✓	✓		1				55	
Morocco	partial	✓	✓	3	6		4		3	
Mozambique	partial	✓	✓		2			2		
Namibia	complete	✓	✗	114	19	3	2			14
Nepal	partial	✗	✓		2			1		
Netherlands	partial	✓	✓	215	1				2	
New Zealand	partial	✓	✓	3	16			1		14
Norway	complete	✓	✓	246	2813		3	105	89	
Panama	partial	✗	✓					1		
Peru	complete	✓	✗	22	52					
Poland	complete	✓	✓	1217	144		1161			
Portugal	partial	✗	✓	146				3		
Romania	complete	✓	✓	383	791			1		
Russian Federation	partial	✓	✓	39	131					
Saint Lucia	partial	✗	✓	1			1			
Serbia	complete	✓	✗		25					
Seychelles	partial	✗	✓		1			2		
Sierra Leone	partial	✗	✓		1	3				3
Slovakia	partial	✗	✓	420					1	
Slovenia	partial	✓	✓	286	1	2		865		
Solomon Islands	partial	✗	✓	16						
South Africa	partial	✗	✓					1		
South Sudan	partial	✓	✓		2				20	
Spain	partial	✗	✓	1787	2		1	6		
Sri Lanka	partial	✗	✓					2		
Svalbard And Jan Mayen	partial	✓	✓		7		21	4		
Sweden	complete	✓	✓	5194	10344			2	1210	
Switzerland	partial	✗	✓	4	1		1			

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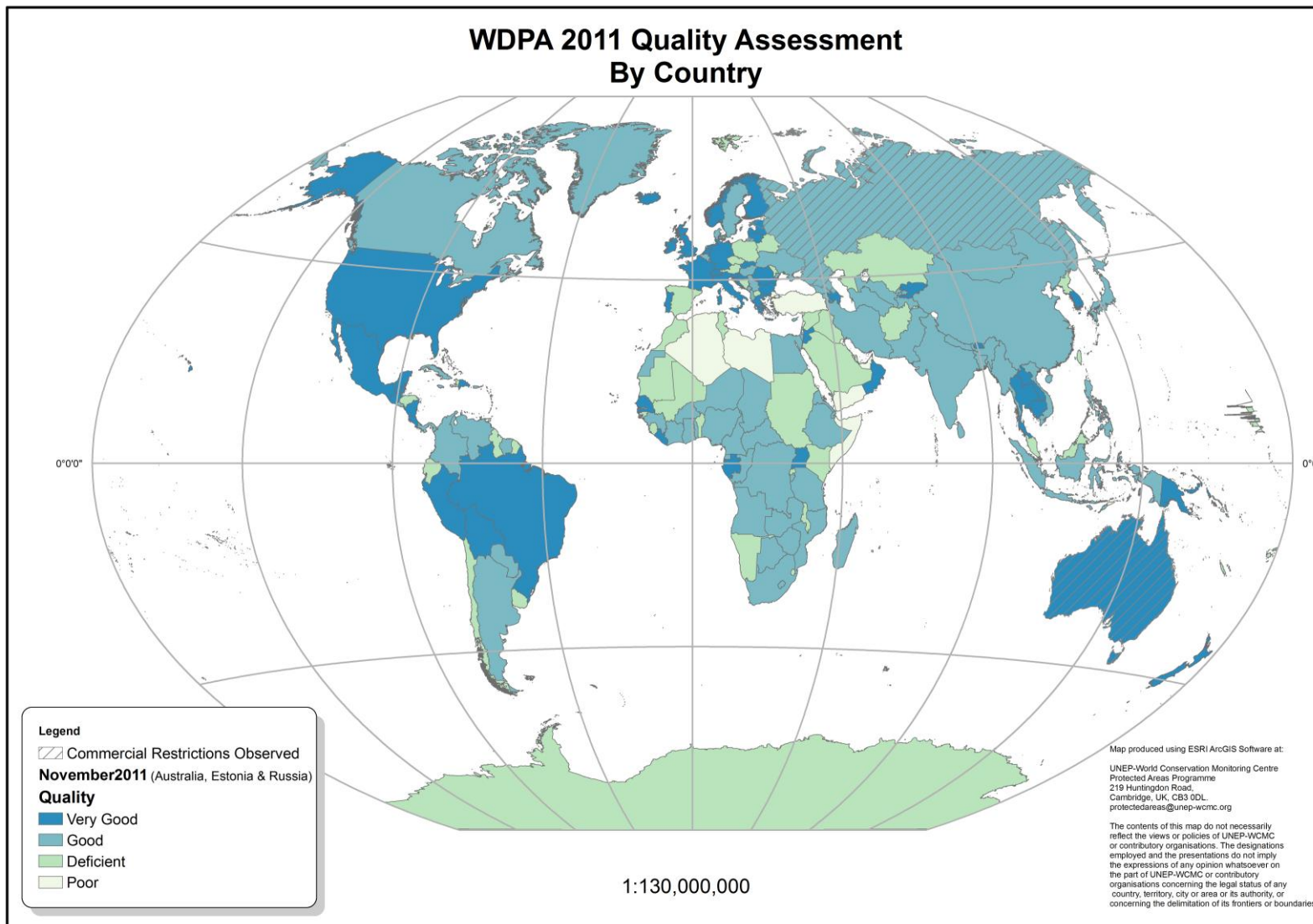
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Tanzania, United Republic of	partial	✓	✓	15	30	52				
Thailand	complete	✓	✓	15	214			1		
Tunisia	partial	×	✓		1					
Turkey	partial	×	✓					1	1	
Uganda	partial	×	✓		3					
Ukraine	partial	×	✓						1	
United Arab Emirates	complete	✓	✓	7				2		
United Kingdom	partial	×	✓	898	3					
United States	partial	✓	✓	627	5	6		7		
Uruguay	complete	✓	×		11		1		8	30
Viet Nam	partial	×	✓					1		
Yemen	partial	×	✓				1	1		

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Appendix B: WDPA 2011 Global Quality Assessment ¹



¹ The WDPA Quality Assessment is based on currency of information, completeness of attributes and presence of boundary data.

Commercial use restrictions are imposed by data sources in Australia, Estonia and Russia, leading to reduced availability of this data to commercial entities.