



Convention on  
Biological Diversity



# Aichi Biodiversity Target 11 Country Dossier: JORDAN

With generous support from:



DEUTSCHE ZUSAMMENARBEIT

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH



UK Government



**WCMC**



Global Partnership on  
AICHI TARGET 11



# TABLE OF CONTENTS

---

<b>GLOSSARY</b> .....	<b>3</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>5</b>
<i>Aichi Biodiversity Target 11 Elements: Current status and opportunities for action</i> .....	5
<b>INTRODUCTION</b> .....	<b>8</b>
<b>SECTION I: CURRENT STATUS</b> .....	<b>10</b>
<i>COVERAGE - TERRESTRIAL &amp; MARINE</i> .....	11
<i>ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL &amp; MARINE</i> .....	14
<i>AREAS IMPORTANT FOR BIODIVERSITY</i> .....	17
<i>AREAS IMPORTANT FOR ECOSYSTEM SERVICES</i> .....	20
<i>CONNECTIVITY &amp; INTEGRATION</i> .....	23
<i>GOVERNANCE DIVERSITY</i> .....	24
<i>PROTECTED AREA MANAGEMENT EFFECTIVENESS</i> .....	26
<b>SECTION II: EXISTING PROTECTED AREA AND OECM COMMITMENTS</b> .....	<b>27</b>
<i>NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)</i> .....	28
<i>APPROVED GEF-5, GEF-6 &amp; GCF PROTECTED AREA PROJECTS</i> .....	30
<i>OTHER ACTIONS/COMMITMENTS</i> .....	31
<b>ANNEX I</b> .....	<b>32</b>
<i>FULL LIST OF TERRESTRIAL ECOREGIONS</i> .....	32
<b>REFERENCES</b> .....	<b>33</b>



## GLOSSARY

---

AZEs	Alliance for Zero Extinction sites
CEPF	Critical Ecosystem Partnership Fund
EBSA	Ecologically or Biologically Significant Marine Area
EEZ	Exclusive Economic Zone
GCF	Green Climate Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
IBA	Important Bird and Biodiversity Area
ICCAs	Indigenous and Community Conserved Area Area (may also be referred to as territories and areas conserved by Indigenous peoples and local communities or “territories of life”)
IPLC	Indigenous Peoples and Local Communities
KBA	Key Biodiversity Area
MEOW	Marine Ecosystems of the World
MPA	Marine Protected Area
NBSAP	National Biodiversity Strategy and Action Plan
OECD	Other Effective Area-Based Conservation Measures
PA	Protected Area
PAME	Protected Area Management Effectiveness
PPA	Privately Protected Area
PPOW	Pelagic Provinces of the World
ProtConn	Protected Connected land indicator
SOC	Soil Organic Carbon
TEOW	Terrestrial Ecosystems of the World
WDPA	World Database on Protected Areas
WD-OECD	World Database on Other Effective Area-Based Conservation Measures



## 4 | Aichi Biodiversity Target 11 Country Dossier: JORDAN

### Disclaimer

The designations employed and the presentation of material in this dossier do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Convention on Biological Diversity (SCBD) or United Nations Development Programme (UNDP) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The information contained in this publication do not necessarily represent those of the SCBD or UNDP.

This country dossier is compiled by the UNDP and SCBD from publicly available information. It is prepared, within the overall work of the Global Partnership on Aichi Biodiversity Target 11, for the purpose of attracting the attention of the Party concerned and other national stakeholders to facilitate the verification, correcting, and updating of country data. The statistics might differ from those reported officially by the country due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Furthermore, the suggestions from the UNDP and SCBD are based on analyses of global datasets, which may not necessarily be representative of national policy or criteria used at the national level. The analyses are also subject to the limits inherent in global indicators (precision, reliability, underlying assumptions, etc.). Therefore, they provide useful information but cannot replace analyses at a national level nor constitute a future benchmark for national policy or decision-making.

The preparation of this dossier was generously supported by: the Government of the Federal Republic of Germany, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*; the European Commission; the Government of the United Kingdom of Great Britain and Northern Ireland; and the Government of Japan (Japan Biodiversity Fund). The dossier does not necessarily reflect their views.

This publication may be reproduced for educational or non-commercial purposes without special permission from the copyright holders, provided acknowledgement of the source is made. The SCBD and UNDP would appreciate receiving a copy of any publications that use this document as a source.



## EXECUTIVE SUMMARY

---

This document provides information on the coverage of protected areas (PAs) and other effective area-based conservation measures (OECMs), as currently reported in global databases (the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM)). It also includes details on the status of the other qualifying elements of Aichi Biodiversity Target 11 based on this data. These statistics might differ from those reported officially by countries due to difference in methodologies and datasets used to assess protected area coverage, differences in the base maps used to measure terrestrial and marine area of a country or territory, or if global datasets differ from the criteria and indicators used at the national level. Where available, data from national statistics for the elements of Target 11 are included alongside records from these global databases. This dossier also provides a summary of commitments made under Aichi Biodiversity Target 11, and a summary of potential opportunities regarding elements of the target for future planning.

The dossier has been developed in consultation with the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), which manages the WDPA, WD-OECM and Global Database on Protected Area Management Effectiveness (GD-PAME). Parties to the CBD are requested to contact [protectedareas@unep-wcmc.org](mailto:protectedareas@unep-wcmc.org) with any updates to the information in these databases.

### Aichi Biodiversity Target 11 Elements: Current status and opportunities for action

#### Coverage - Terrestrial & Marine

- **Status:** as of May 2021, terrestrial coverage in Jordan is 4,013.0 km<sup>2</sup> (4.5%) and marine coverage is 0.9 km<sup>2</sup> (1.0%).
- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs (for example, the recent MPA in the Gulf of Aqaba), and the recognizing and reporting OECMs to the WD-OECM. In the future, focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.

#### Ecological Representativeness— Terrestrial & Marine

- **Status:** Jordan contains 6 terrestrial ecoregions, 1 marine ecoregion, and 0 pelagic provinces (all of which have at least partial coverage from reported PAs and OECMs): the mean coverage by reported PAs and OECMs is 4.8% (terrestrial), and 1.0% (marine).
- **Opportunities for action:** there is opportunity for Jordan to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs.



## 6 | Aichi Biodiversity Target 11 Country Dossier: JORDAN

### Areas Important for Biodiversity

- **Status:** Jordan has 23 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 12.9%, while 11 KBAs have no coverage by reported PAs and OECMs. In Jordan, there are also 27 areas important for migratory birds, of which 7 are included as protected areas.
- **Opportunities for action:** there is opportunity for Jordan to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

### Areas Important for Ecosystem Services

- **Status:** coverage of areas important for ecosystem services: In Jordan, 5.1% of aboveground biomass carbon, 4.8% of belowground biomass carbon, 4.4% of soil organic carbon, 1.9% of carbon stored in marine sediments is covered by PAs and OECMs.
- **Opportunities for action:** for carbon, there is opportunity for Jordan to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks, as identified in the map above. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.
- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

### Connectivity and Integration

- **Status:** coverage of protected-connected lands is 2.1%.
- **Opportunities for action:** there is opportunity for a general increase in PA or OECM cover and to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.
- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

### Governance Diversity

- **Status:** All protected areas in Jordan fall under the ministry of environmental responsibility and managed by the NGO: Royal Society for Conservation Nature.
- **Opportunities for action:** explore opportunities for governance types that have lower representation, for Jordan this could relate to shared governance, etc.





## 7 | Aichi Biodiversity Target 11 Country Dossier: JORDAN

- There is also opportunity for Jordan to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

### Protected Area Management Effectiveness

- **Status:** In Jordan, all protected areas (12 sites) have implemented management plans. Additionally, 37.6% of terrestrial PAs and 100.0% of marine PAs have completed Protected Area Management Effectiveness (PAME) assessments reported.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs to achieve the target.
- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.



## INTRODUCTION

---

The Strategic Plan for Biodiversity 2011-2020 was adopted at the tenth meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) held in Nagoya, Aichi Prefecture, Japan from 18-29 October 2010. The vision of the Strategic Plan is one of “Living in harmony with nature” where *“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people”* (CBD, 2010). In addition to this vision, the Strategic Plan is composed of 20 targets, under five strategic goals. Aichi Biodiversity Target 11 states that *“By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.”*

With the conclusion of the Aichi Biodiversity Targets in 2020, Target 11 on area-based conservation has seen success in the expansion of the global network of protected areas (PA) and other effective area-based conservation measures (OECMs). The negotiation of the post-2020 Global Biodiversity Framework (GBF) and its future targets provide an essential opportunity to further improve the coverage of PAs and OECMs, to improve other aspects of area-based conservation, to accelerate progress on biodiversity conservation more broadly, while also addressing climate change, and the Sustainable Development Goals. This next set of global biodiversity targets are to be adopted at the fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity. These new targets must aim to build upon lessons learned from the last decade of progress to deliver transformative change for the benefit of nature and people, to realize the 2050 Vision for biodiversity.

The United Nations Development Programme (UNDP) and the Secretariat of the Convention on Biological Diversity have developed the Aichi Biodiversity Target 11 Country Dossiers, which provide countries with an overview of the status of Target 11 elements, opportunities for action, and a summary of commitments made by Parties over the last decade. Each dossier can support countries in assessing their progress on key elements of Aichi Biodiversity Target 11 and identifying opportunities to prioritize new protected areas and OECMs.

This dossier provides an overview of area-based conservation in Jordan. Section I of the dossier presents data on the current status of Jordan’s PAs and OECMs. The data presented in Section I relates to each element of Target 11. Section I also presents the PA and OECM coverage for two critical ecosystem services: water security and carbon stocks. In addition, the dossier presents potential opportunities for action for Jordan, in relation to each Target 11 element. The analyses present options for improving Jordan’s area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Jordan’s existing PA and OECMs commitments as a summary of existing efforts towards achieving Target 11. This gives focus not only to national policy and actions but also voluntary commitments to the UN. Furthermore, where data is



## 9 | Aichi Biodiversity Target 11 Country Dossier: JORDAN

available, this dossier provides information on potential OECMs, Indigenous and Community Conserved Areas (ICCAs; also often referred to as territories and areas conserved by Indigenous peoples and local communities or “territories of life”) and Privately Protected Areas (PPAs) and the potential contribution they will have in achieving the post-2020 targets.

The information on PAs and OECMs presented here is derived from the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM). These databases are joint products of UNEP and IUCN, managed by UNEP-WCMC, and can be viewed and downloaded at [www.protectedplanet.net](http://www.protectedplanet.net). Parties are encouraged to provide data on their PAs and OECMs to UNEP-WCMC for incorporation into the databases (see e.g. Decisions 10/31 and 14/8). The significant efforts of Parties in updating their data in the build up to the publication of the Protected Planet Report 2020 (UNEP-WCMC and IUCN, 2021) were greatly appreciated. UNEP-WCMC welcomes further updates, following the data standards described here ([www.wcmc.io/WDPA\\_Manual](http://www.wcmc.io/WDPA_Manual)), and these should be directed to [protectedareas@unep-wcmc.org](mailto:protectedareas@unep-wcmc.org). The statistics presented in this dossier are derived from the May 2021 WDPA and WD-OECM releases, unless explicitly stated otherwise. Readers should consult [www.protectedplanet.net](http://www.protectedplanet.net) for the latest coverage statistics (updated monthly).

Some data from the WDPA and WD-OECM are not made publicly available at the request of the data-provider. This affects some statistics, maps, and figures presented in this dossier. Statistics provided by UNEP-WCMC (terrestrial and marine coverage) are based upon the full dataset, including restricted data. All other statistics, maps, and figures are based upon the subset of the data that is publicly available.

Where data is less readily available, such as for potential OECMs, ICCAs and PPAs, data has also been compiled from published reports and scientific literature to provide greater awareness of these less commonly recorded aspects. These data are provided to highlight the need for comprehensive reporting on these areas to the WDPA and/or WD-OECM. Parties are invited to work with indigenous peoples, local communities and private actors to submit data under the governance of these actors, with their consent, to the WDPA and/or WD-OECM.

Overall, PAs and OECMs are essential instruments for biodiversity conservation and to sustain essential ecosystem services that support human well-being and sustainable development, including food, medicine, and water security, as well as climate change mitigation and adaptation and disaster risk reduction. The data in this dossier, therefore, aims to celebrate the current contributions of PAs and OECMs, whilst the gaps presented hope to encourage greater progress, not just for the benefit of biodiversity and the post-2020 GBF, but also to recognize the essential role of PAs and OECMs to the Sustainable Development Goals and for addressing the climate crisis.



## SECTION I: CURRENT STATUS

---

Aichi Biodiversity Target 11 refers to both protected areas (PAs) and other effective area-based conservation measures (OECMs). This section provides the current status for all elements of Aichi Biodiversity Target 11 where indicators with global data are available. Statistics for all elements are presented using data on both PAs and OECMs (where this data is available and reported in global databases like the WDPA and WD-OECM). It is recognized that statistics reported in the WPDA and WD-OECM might differ from those reported officially by countries due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Details on UNEP-WCMC's methods for calculating PA and OECM coverage area available [here](#). The global indicators adopted here for presenting the status of other elements of Target 11 may also differ from those in use nationally. Where available, results from national reporting are also included.



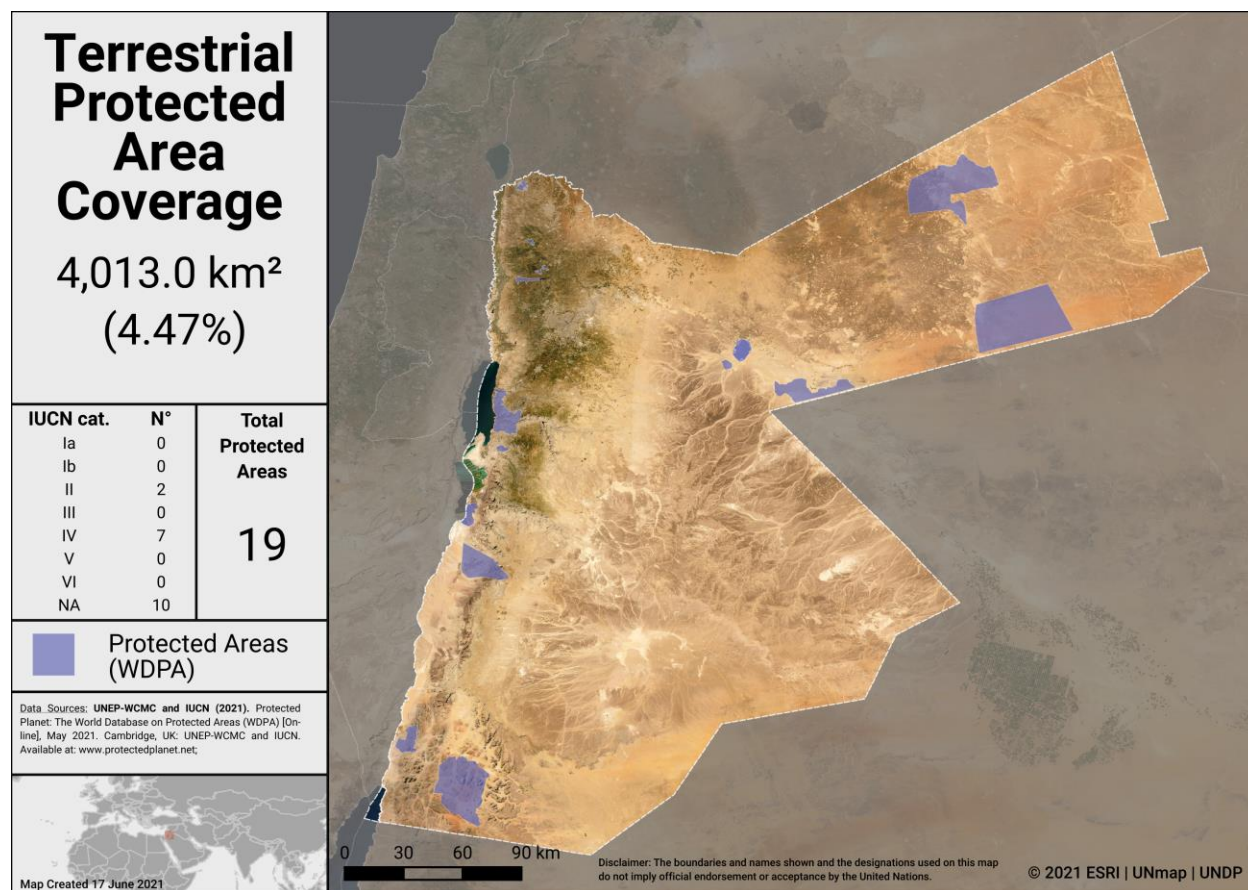
## COVERAGE - TERRESTRIAL & MARINE

As of May 2021, Jordan has **33** protected areas reported in the World Database on Protected Areas (WDPA). 12 proposed PAs are not included in the following statistics (see details on UNWP-WCMC’s methods for calculating PA and OECM coverage [here](#)).

As of May 2021, Jordan has 0 OECMs reported in the world database on OECMs (WD-OECM).

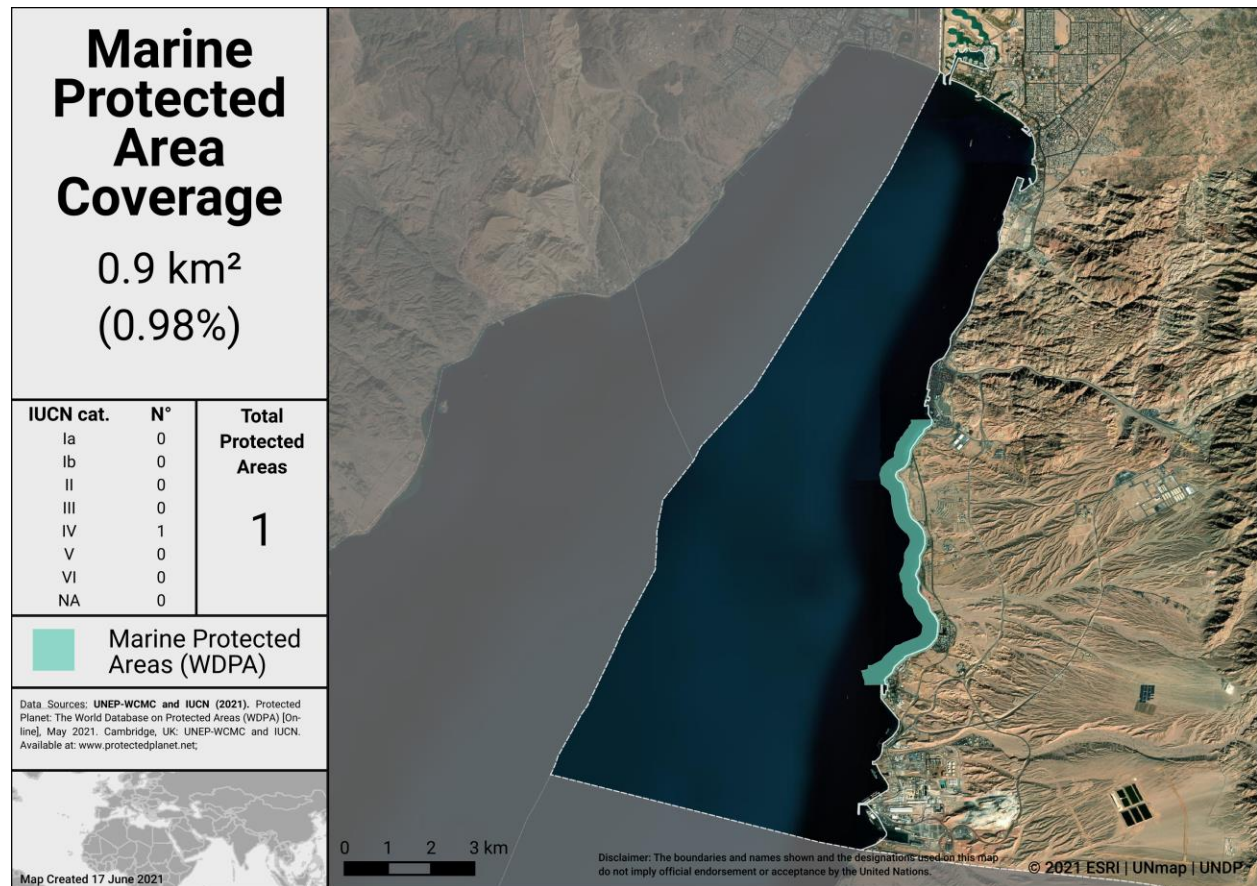
Current coverage for Jordan:

- 4.5% terrestrial (21 protected areas, 4,013.0 km<sup>2</sup>)
- 1.0% marine (1 protected areas, 0.9 km<sup>2</sup>)



Terrestrial Protected Areas in Jordan





### Marine Protected Areas in Jordan

*Jordan declared the new marine protected area in the Gulf of Aqaba (in 2020), Jordan now has one marine site, covering a length of beach about 27 km; the MPA is 7 km<sup>2</sup>, protecting rich cover of coral reef and marine species.*

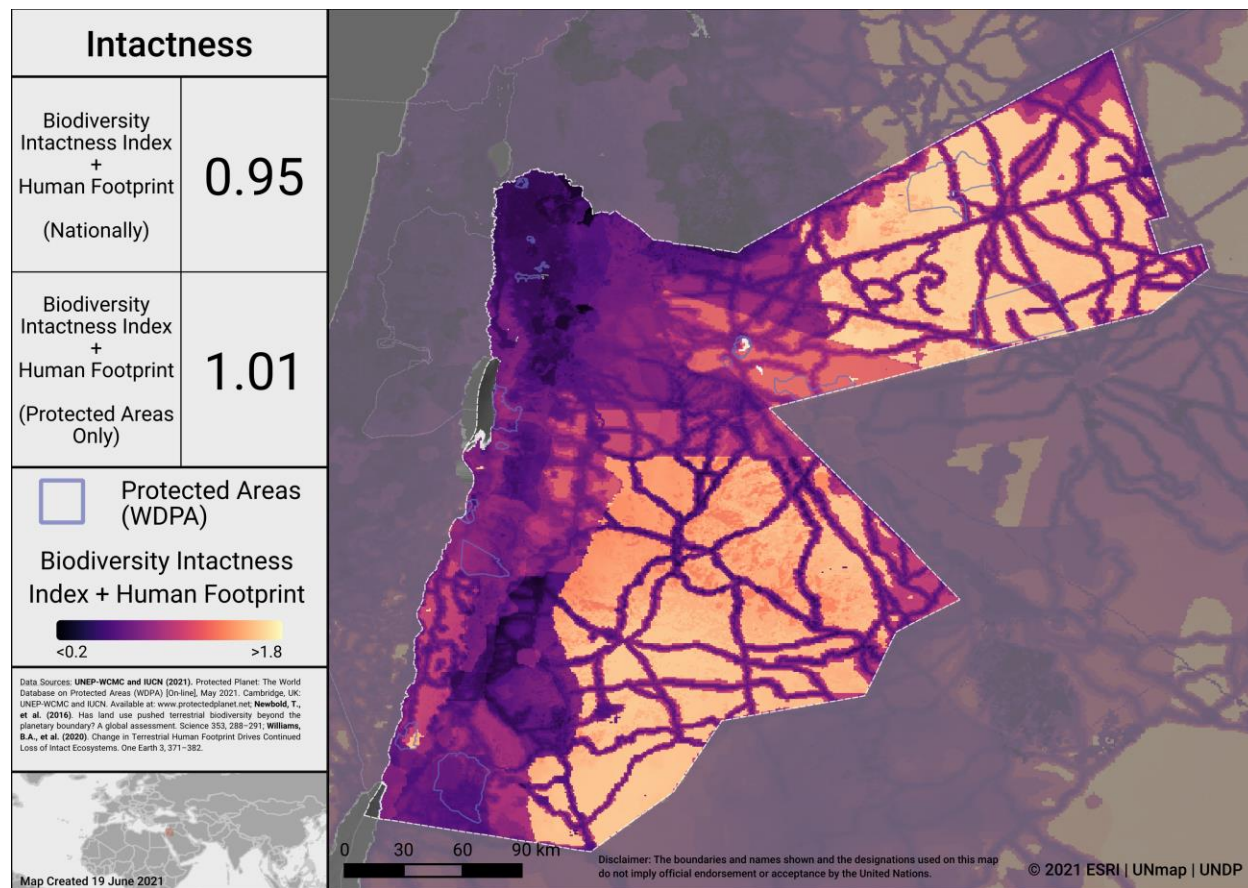
### Potential OECMs

There are currently no potential OECM examples for Jordan.

### Opportunities for action

Opportunities for the near-term include updating the WDPA with any unreported PAs (for example, the recent MPA in the Gulf of Aqaba), and the recognizing and reporting OECMs to the WD-OECM. In the future, as Jordan considers where to add new PAs and OECMs, the map below identifies areas in Jordan where intact terrestrial areas are not currently protected. Focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.

# 13 | Aichi Biodiversity Target 11 Country Dossier: JORDAN



Intactness in Jordan

To explore more on intactness visit the UN Biodiversity Lab: [map.unbiodiversitylab.org](http://map.unbiodiversitylab.org).



## ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL & MARINE

Ecological representativeness is assessed based on the PAs and OECMs coverage of broad-scale biogeographic units. Globally, ecoregions have been described for terrestrial areas (Dinerstein et al, 2017), marine coastal and shelf ecosystems (to a depth of 200m; Spalding et al 2007) and surface pelagic waters (Spalding et al 2012).

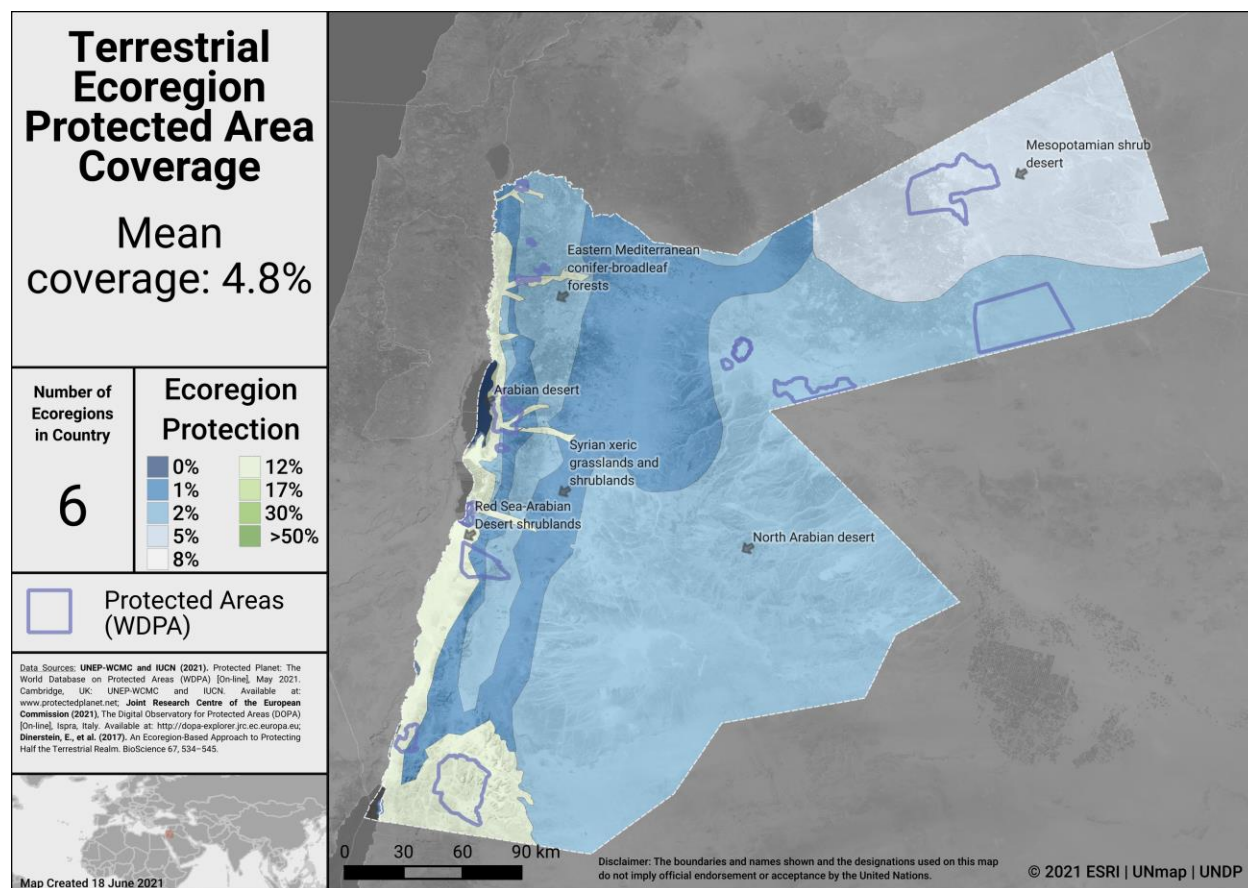
Jordan has 6 **terrestrial** ecoregions. Out of these:

- All 6 ecoregions have at least some coverage from PAs and OECMs.
- 0 ecoregions have at least 17% protected within the country.
- The average terrestrial coverage of ecoregions is 4.8%.

Jordan has 1 **marine** ecoregion and 0 **pelagic province**:

- Coverage of the marine ecoregion, from reported PAs and OECMs, is 1.0%.

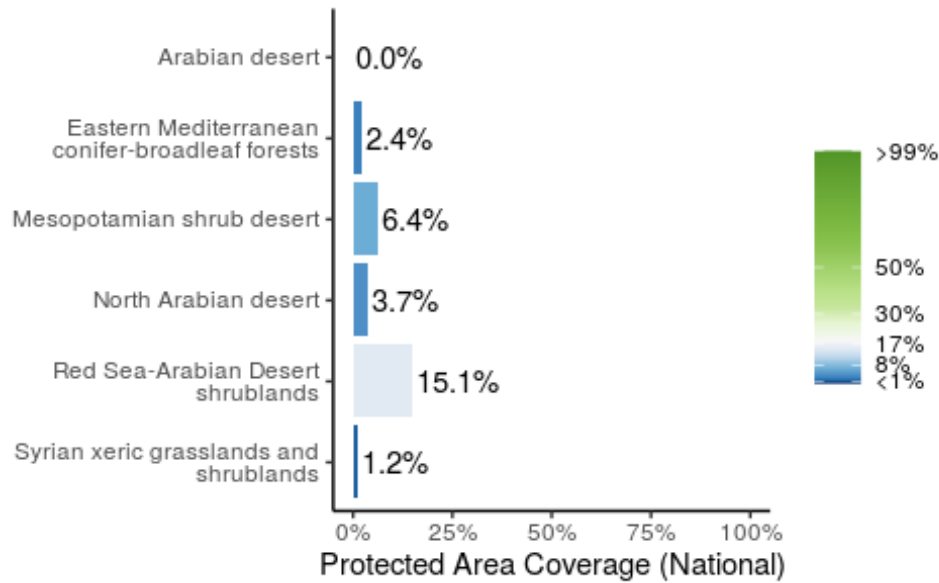
A full list of terrestrial ecoregions in Jordan is available in Annex I.



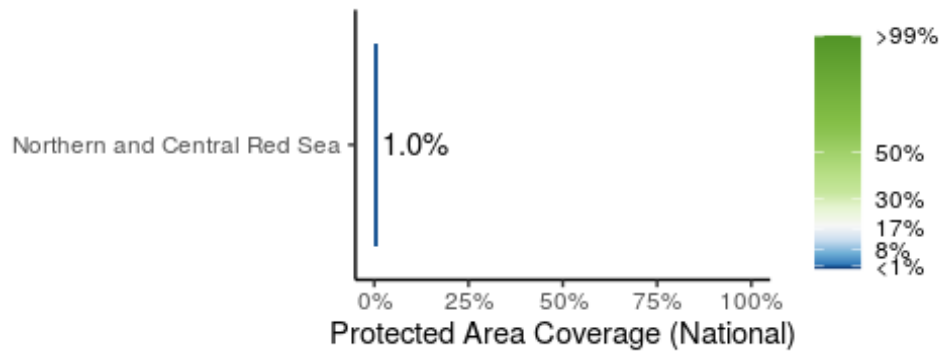
Terrestrial ecoregions in Jordan



# 15 | Aichi Biodiversity Target 11 Country Dossier: JORDAN

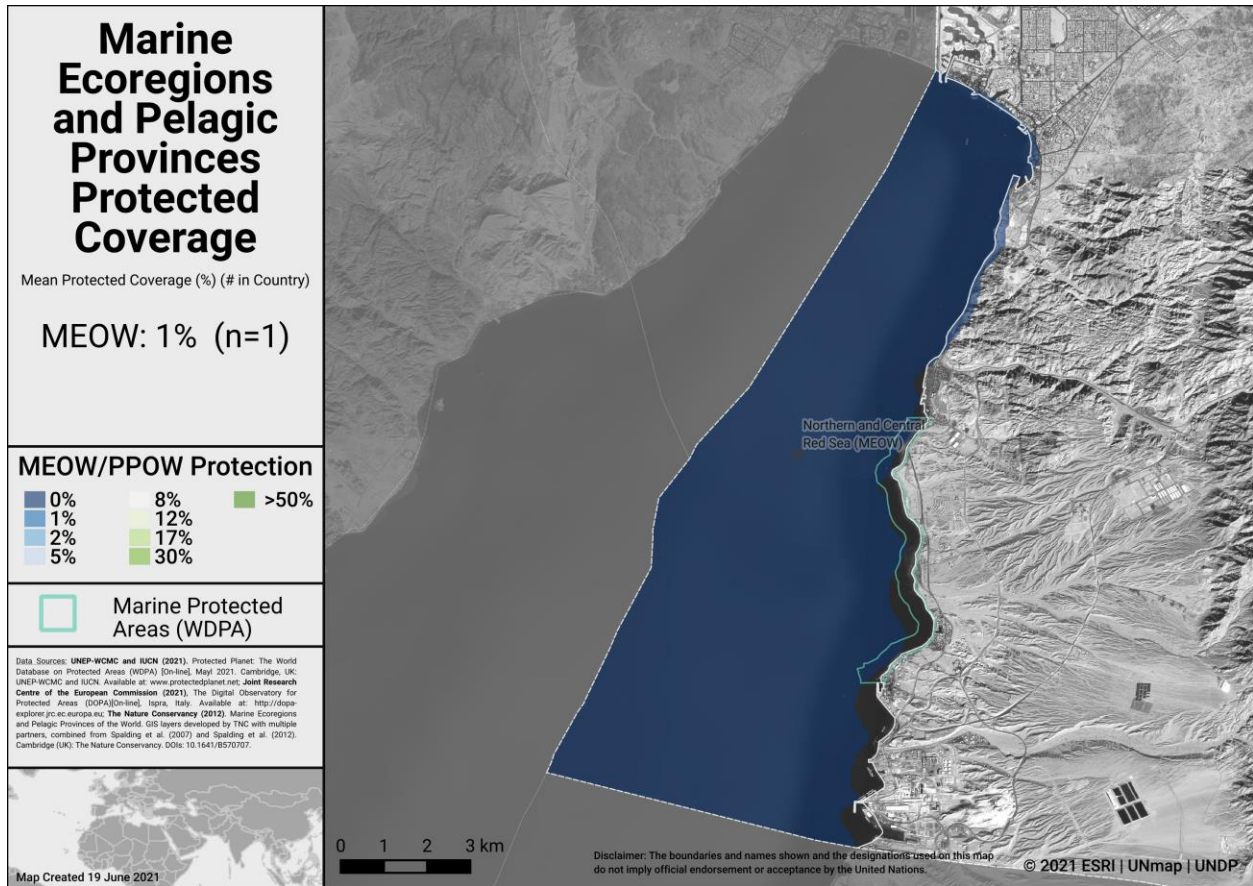


## Terrestrial ecoregions of the World (TEOW) in Jordan



## Marine Ecoregions of the World (MEOW) in Jordan





Marine ecoregions and pelagic provinces

### Opportunities for action

There is opportunity for Jordan to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs.

## AREAS IMPORTANT FOR BIODIVERSITY

### Key Biodiversity Areas (KBAs)

Protected area and OECM coverage of Key Biodiversity Areas (KBAs) provide one proxy for assessing the conservation of areas important for biodiversity at national, regional and global scales. KBAs are sites that make significant contributions to the global persistence of biodiversity (IUCN, 2016). The KBA concept builds on four decades of efforts to identify important sites for biodiversity, including Important Bird and Biodiversity Areas, Alliance for Zero Extinction sites, and KBAs identified through Hotspot ecosystem profiles supported by the Critical Ecosystem Partnership Fund. Incorporating these sites, the dataset of internationally significant KBAs includes Global KBAs (sites shown to meet one or more of 11 criteria in the Global Standard for the Identification of KBAs, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and irreplaceability), Regional KBAs (sites identified using pre-existing criteria and thresholds, that do not meet the Global KBA criteria based on existing information), and KBAs whose Global/Regional status is Not yet determined, but which will be assessed against the global KBA criteria within 8-12 years. Regional KBAs are often of critical international policy relevance (e.g., in EU legislation and under the Ramsar Convention on Wetlands), and many are likely to qualify as Global KBAs in future once assessed for their biodiversity importance for other taxonomic groups and ecosystems. To date, nearly 16,000 KBAs have identified globally, and information on each of these is presented in the World Database of Key Biodiversity Areas: [www.keybiodiversityareas.org](http://www.keybiodiversityareas.org).

Jordan has **23** Key Biodiversity Areas (KBAs).

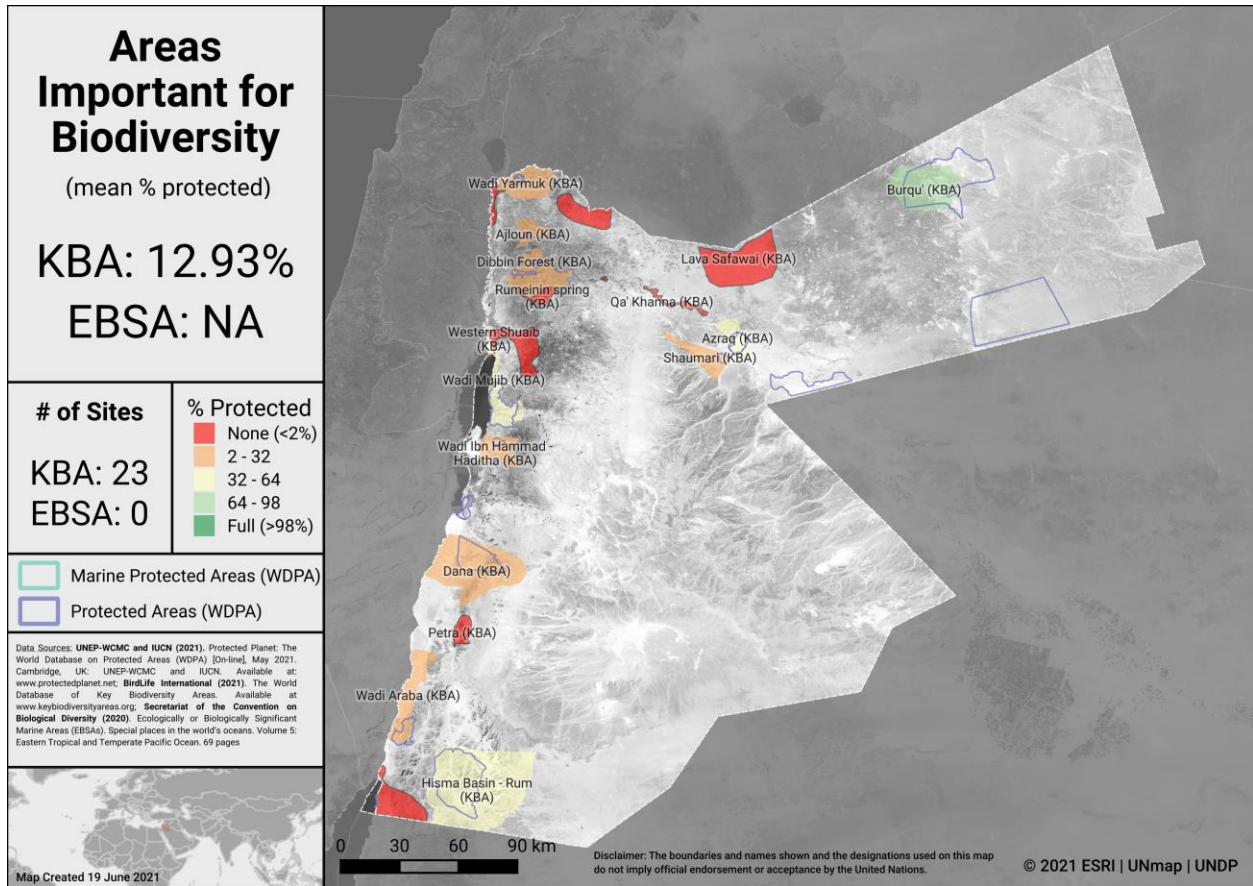
- Mean percent coverage of all KBAs by PAs and OECMs in Jordan is **12.9%**.
- **0** KBAs have full (>98%) coverage by PAs and OECMs.
- **12** KBAs have partial coverage by PAs and OECMs.
- **11** KBAs have no (<2%) coverage by PAs and OECMs.

This country has established a Key Biodiversity Area (KBA) National Coordination Group which brings together a wide range of stakeholders, from government agencies, NGOs, academia and wider society. The group oversees and coordinates the identification, delineation, monitoring and promotion of conservation of KBAs, and is currently undertaking a national assessment of KBAs across all taxonomic groups and ecosystems for which data exist, building on the existing network of KBAs in the country.

### Other important areas:

In Jordan, there are also 27 areas important for migratory birds, of which 7 are included as protected areas.

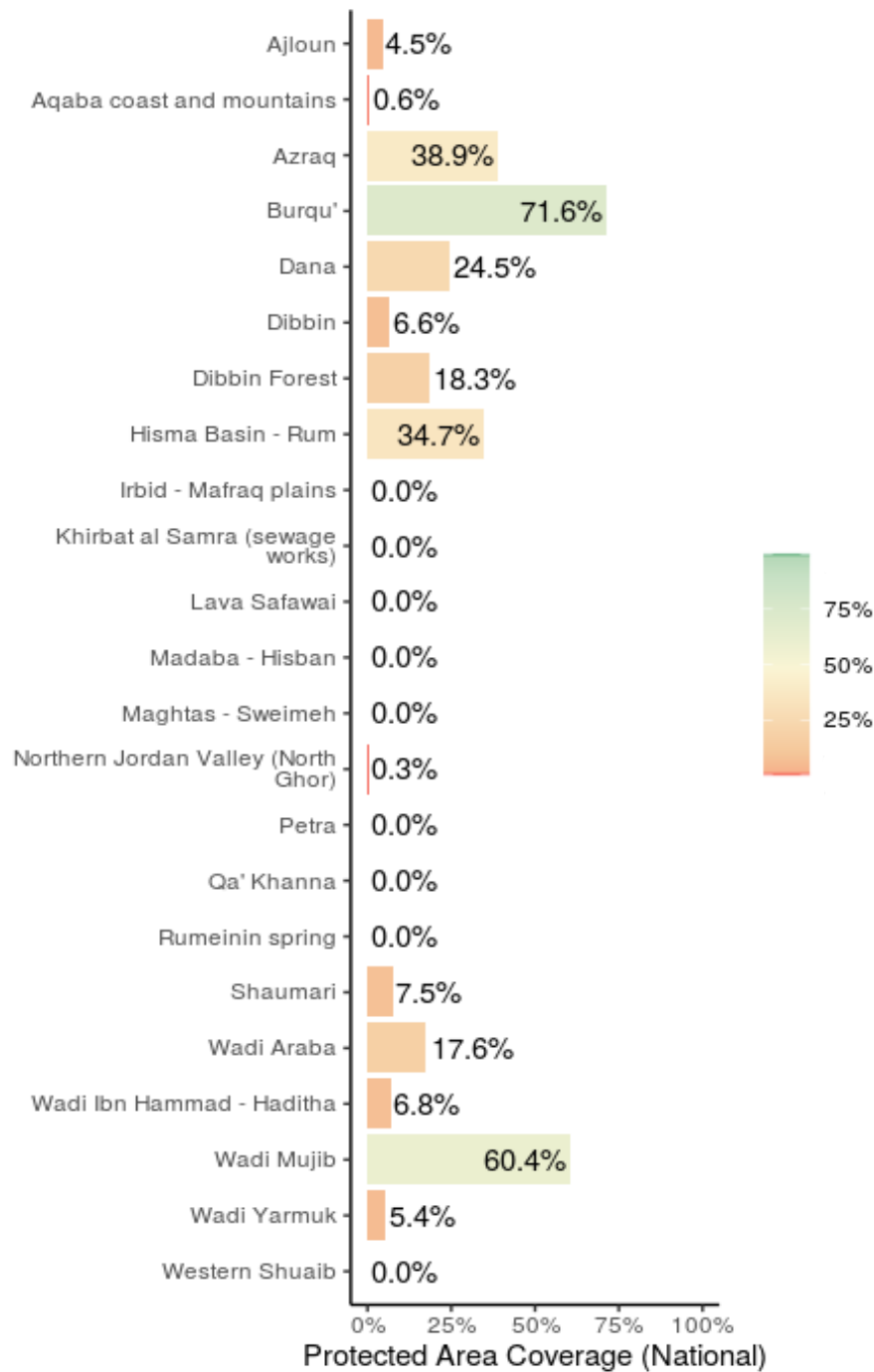




Areas Important for Biodiversity in Jordan







Key Biodiversity Area Coverage (KBA) in Jordan

**Opportunities for action**

There is opportunity for Jordan to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.



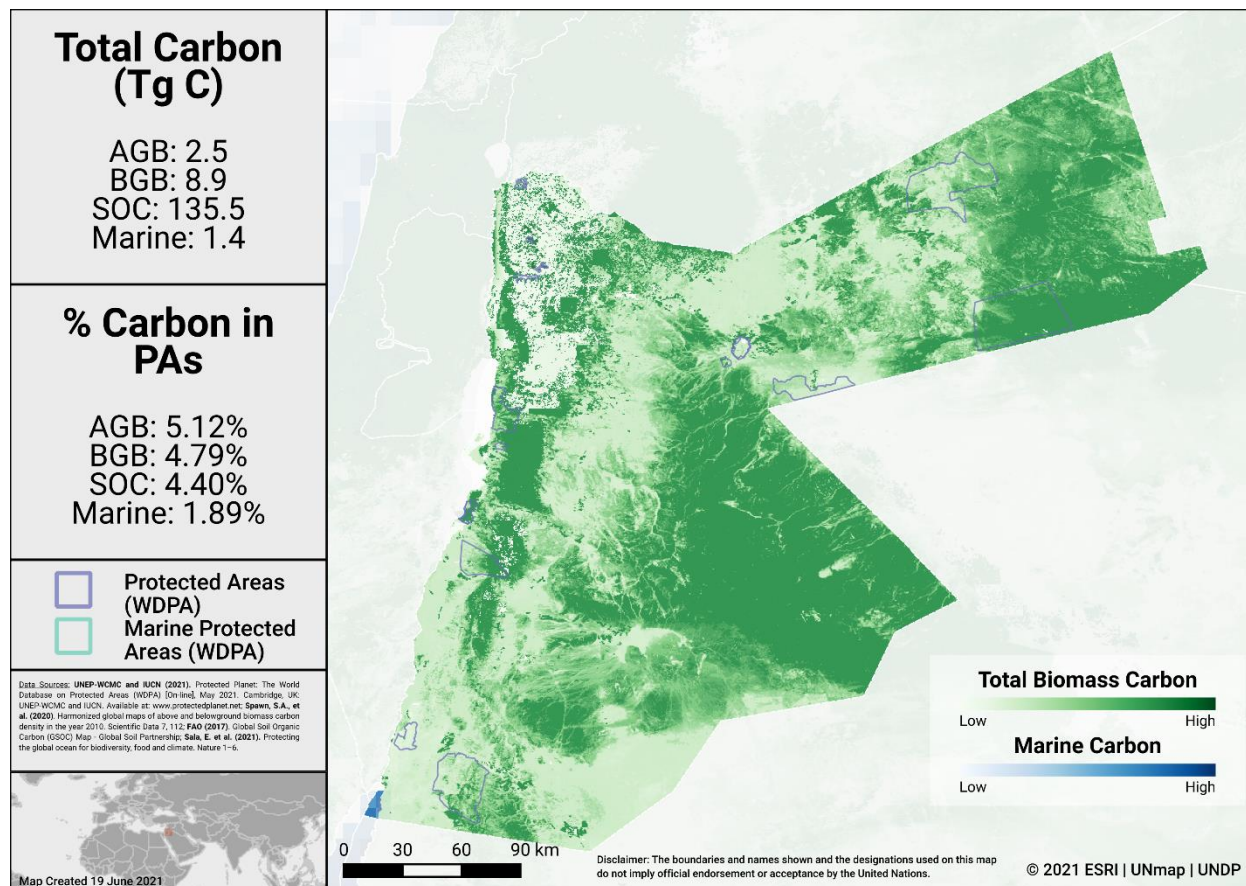
## AREAS IMPORTANT FOR ECOSYSTEM SERVICES

There is no single indicator identified for assessing the conservation of areas important for ecosystem services. For simplicity, two services with available global datasets are assessed here (carbon and water). In future, other critical ecosystem services could be explored.

### Carbon

Data for biomass carbon comes from temporally consistent and harmonized global maps of aboveground biomass and belowground biomass carbon density (at a 300-m spatial resolution); the maps integrate land-cover specific, remotely sensed data, and land-cover specific empirical models (see Spawn et al., 2020 for details on methodology). The Global Soil Organic Carbon Map present an estimation of SOC stock from 0 to 30 cm (see FAO, 2017). Data is also presented from global maps of marine sedimentary carbon stocks, standardized to a 1-meter depth (see Sala et al., 2021, and Atwood et al., 2020).

The map below presents the total carbon stocks in Jordan and the percent of carbon in protected areas. The total carbon stocks is 2.5 Tg C from aboveground biomass (AGB), with 5.1% in protected areas; 8.9 Tg C from below ground biomass (BGB), with 4.8% in protected areas; 135.5 Tg C from soil organic carbon (SOC), with 4.4% in protected areas; and 1.4 Tg C from marine sediment carbon, with 1.9% in protected areas.



Carbon Stocks in Jordan

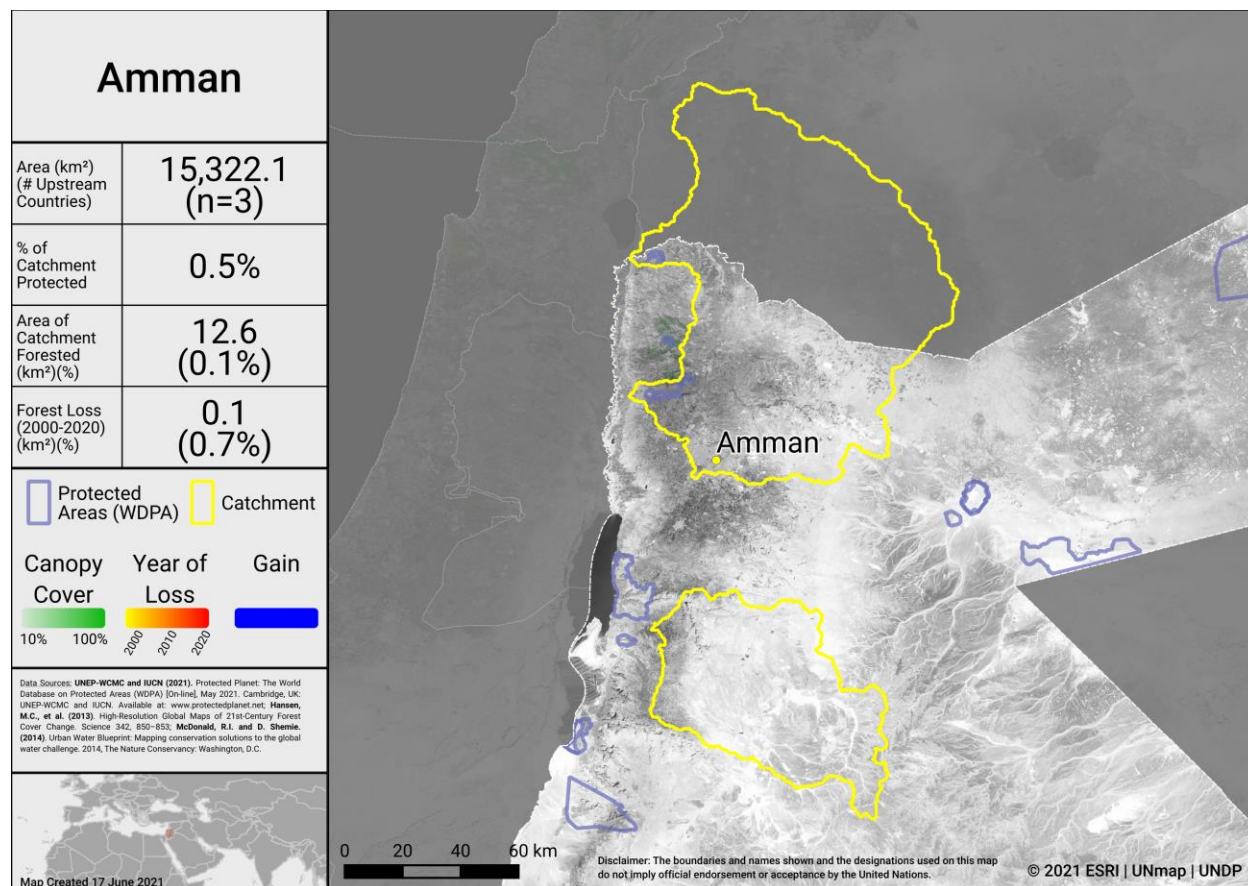


## Water

Information on the water sources for 534 cities is available via the City Water Map (CWM) and provides details on the catchment area of the watershed that supplies these cities (see McDonald et al., 2014 for details on methodology).

Forests and intact ecosystems support stormwater management and clean water availability, especially for large urban populations. Research that has examined the role of forests for city drinking water supplies shows that of the world’s 105 largest cities, more than 30% (33 cities) rely heavily on the local protected forests, which provide ecosystem services that underpin local drinking water availability and quality (Dudley & Stolton, 2003).

Drinking water supplies for cities in Jordan similarly depend on protected forest areas within and around water catchments. The map below shows the percentage forest cover and the forest loss from 2000-2020 in the most heavily populated water catchment of Jordan. Intact catchments can support more consistent water supply and improved water quality.



Water supply area for the city of Amman

### Opportunities for action

For carbon, there is opportunity for Jordan to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks, as identified in the map above. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.



## CONNECTIVITY & INTEGRATION

Two global indicators, the Protected Connected land indicator (ProtConn; EC-JRC, 2021; Saura et al., 2018) and the PARC-Connectedness indicator (CSIRO, 2019), have been proposed for assessing the terrestrial connectivity of PA and OECM networks. To date there is no global indicator for assessing marine connectivity, though some recent developments include proposed guidance for the treatment of connectivity in the planning and management of MPAs (see Lausche et al., 2021).

### Protected Connected Land Indicator (Prot-Conn)

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) in Jordan was 2.1%.

### PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Jordan is 0.29. This represents no significant change since 2010.

### Corridor case studies

There are currently no corridor case studies available for Jordan (but see general details on conserving connectivity through ecological networks and corridors in Hilty et al 2020).

### Opportunities for action

There is opportunity for a general increase in PA or OECM cover and to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).



## GOVERNANCE DIVERSITY

There is a lack of comprehensive global data on governance quality and equity in PAs and OECMs. Here, we provide data on the diversity of governance types for reported PAs and OECMs.

All protected areas in Jordan fall under the ministry of environmental responsibility and are managed by the NGO: Royal Society for Conservation Nature.

As of May 2021, as reported in the WDPA, PAs in Jordan have the following governance types:

- 57.6% are governed by **governments**
  - 3.0% by federal or national ministry or agency
  - 3.0% by sub-national ministry or agency
  - 51.5% by government-delegated management
- 0.0% are under **shared** governance
  - 0.0% by collaborative governance
  - 0.0% by joint governance
  - 0.0% by transboundary governance
- 3.0% are under **private** governance
  - 0.0% by individual landowners
  - 3.0% by non-profit organisations
  - 0.0% by for-profit organisations
- 15.2% are under **IPLC** governance
  - 0.0% by Indigenous Peoples
  - 15.2% by local communities
- 24.2% **do not** report a governance type
  - (All of which are international designations or proposed PAs)

### OECMs

As of May 2021, there are **0** OECMs in Jordan reported in the WD-OECM, therefore there is no data available on OECM governance types.

### Privately Protected Areas (PPAs)

There is currently no additional data available on PPAs for Jordan (see Gloss et al., 2019, and Stolton et al., 2014 for details).

### Other Indigenous lands

Lands managed and/or controlled by Indigenous Peoples cover an area of 73,343 km<sup>2</sup>, of which 73,027 km<sup>2</sup> falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 43,870 km<sup>2</sup> (for details on analysis see Garnett et al., 2018).



For Jordan evidence for the presence of Indigenous Peoples comes from: Indigenous Work Group on Indigenous Affairs. Indigenous World 2017 (Indigenous Working Group on Indigenous Affairs, 2017).

Boundaries of the lands Indigenous Peoples manage or have tenure rights over come from: Abumelhim, M. H. Women and Social Change in Jordanian Bedouin Society. *Studies in Sociology of Science* 4, 27–31 (2013).

### Opportunities for action

Explore opportunities for governance types that have lower representation, for Jordan this could relate to shared governance, etc. There is also opportunity for India to complete governance and equity assessments, to establish baselines, and identify relevant actions for improvement. Examples of existing tools and methodologies include: Governance Assessment for Protected and Conserved Areas (Franks & Brooker, 2018), Social Assessment of Protected Areas (Franks et al 2018), and Site-level assessment of governance and equity (IIED, 2020). As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).





## PROTECTED AREA MANAGEMENT EFFECTIVENESS

This section provides information on the coverage of PAs and OECMs with completed protected area management effectiveness (PAME) assessments as reported in the global database (GD-PAME). The proportion of terrestrial and marine PAs with completed PAME assessments is also calculated and compared with the 60% target agreed to in COP-10 Decision X/31. Information is also included regarding changes in forest cover nationally within PAs and OECMs.

In Jordan, all protected areas (12 sites) have implemented management plans for 5 years.

### Protected area management effectiveness (PAME) assessments

As of May 2021, Jordan has 21 designated PAs reported in the WDPA; of these PAs, 13 (62%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 1.7% (1,507 km<sup>2</sup>) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 37.6% of the area of terrestrial PAs have completed evaluations.
- 1.0% (0.9 km<sup>2</sup>) of the marine area of the country is covered by PAs with completed management effectiveness evaluations.
  - 100.0% of the area of marine PAs have completed evaluations.

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has** been met for marine PAs.

As of May 2021, there are 0 OECMs in Jordan reported in the WD-OECM and no information available on the management effectiveness of potential OECMs.

### Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs to achieve the target.

There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.





## SECTION II: EXISTING PROTECTED AREA AND OECM COMMITMENTS

---



## NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

Jordan has submitted an NBSAP during the Strategic Plan for Biodiversity 2011-2020 (most recent NBSAP is available at: <https://www.cbd.int/nbsap/search/>).

*National Target 16 - By 2018, the national protected areas program reviewed and effectively implemented: country assessment of key biodiversity and agrobiodiversity areas finalized and adopted nationally; national protected areas network reviewed and its implementation continued; terrestrial protected areas cover 2% of the total area of the country; marine protected areas cover 10% of the marine and coastal ecosystems in the country; all protected areas are effectively managed and financially sustainable; regulations of special conservation areas and agro-biodiversity hotspots are identified and are incorporated into the new environment law and its bylaws*

This NBSAP **did** include a quantitative target for **terrestrial** PAs or OECMs.

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **YES**

This NBSAP **did** include a quantitative target for **marine** protected areas or OECMs.

*Marine protected areas cover 10% of the marine and coastal ecosystems in the country*

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **NO**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **8 km<sup>2</sup>**.

Actions from the NBSAP will also address other elements of Aichi Biodiversity Target 11:

NBSAP Action #	Action (original language from NBSAP)
16.1.1	design and implement a national survey on key areas.
16.1.2	implement a comprehensive stakeholders' consultation process with focus on local communities.
16.1.3	prepare and disseminate a country report on key biodiversity areas.
16.2.1	design and nationally adopt the process framework for the protected areas network review.
16.2.2	undertake comprehensive academic review including priority field investigations
16.2.4	prepare the review report, seek public opinions and endorse by the Cabinet
16.3.1	prepare and update the designation files for Burqu and Petra protected areas.



<b>NBSAP Action #</b>	<b>Action (original language from NBSAP)</b>
16.3.2	secure official designation for Burqu and Petra by the Cabinet.
16.3.3	secure local communities consent on the protected areas designation
16.3.4	initiate integrated management programs for both sites including the monitoring system.
16.3.5	prepare and adopt participative site governance and benefit sharing frameworks.
16.3.6	install needed human and infrastructure capacities for both sites.
16.4.1-2	finalize the design of the marine protected area; prepare the site designation file and secure official approval by the Cabinet
16.4.3	initiate an integrated management program for the site including the monitoring system.
16.4.4	prepare and adopt participative site governance and benefit sharing frameworks.
16.4.5	install needed human and infrastructure capacities for the site.
16.5.1	prepare and update the management plans for all sites.
16.5.2	undertake a national management effectiveness assessment and disseminate report.
16.5.3	assess the effectiveness of the participative governance frameworks and benefit sharing.
16.6.2	prepare a biannual SCAs effectiveness report.
16.6.3	prepare and implement integrated management plans for the SCAs.
21.1.3	implement a national awareness raising and outreach program on protected areas' economic values.
21.3.2	prepare and implement site specific business plans for all relevant sites.
23.2.2	adopt climate change specific management programs on selected protected areas.
23.2.3	prepare and publish a national report on protected areas and resilience.
23.2.4	design and enforce participative planning and management systems on pilot protected areas.
16.1.1	design and implement a national survey on key areas.



## APPROVED GEF-5, GEF-6 & GCF PROTECTED AREA PROJECTS

### Approved GEF-5 and GEF-6 PA-related biodiversity projects

This includes biodiversity projects from the fifth and sixth replenishment of the Global Environment Facility (GEF-5 and GEF-6) with a clear impact of the quantity or quality of PAs; also including some projects occurring within the wider landscapes/seascapes around PAs. Only those with a status of 'project approved' or 'concept approved' as of June 2019 were considered. The qualifying elements likely benefiting from each GEF project is assessed based on a keyword search of Project Identification Forms (PIF). Where spatial data for the proposed PAs was available, further details (based on an analysis by UNDP) regarding their impacts for ecological representation, coverage of KBAs, and coverage of areas important for carbon storage is included.

GEF ID	PA increase?	Area to be added (km <sup>2</sup> )	Type of new protected area	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4586	Yes	979	Terrestrial	Ecosystem services; Effectively managed; Equitably managed; Integration
5026	No	N/A	N/A	Ecosystem services; Effectively managed; Equitably managed; Integration

Based on spatial data available for GEF project 1438 and 4586, benefits will arise for several elements of Target 11:

#### Coverage of Terrestrial and Marine Ecoregions:

- 3 Terrestrial Ecoregion(s) will have improved coverage. This/these Ecoregion(s) is/are: Eastern Mediterranean conifer-broadleaf forests; Red Sea-Arabian Desert shrublands; Syrian xeric grasslands and shrublands;
  - The average increase in coverage of Terrestrial Ecoregions will be 2.53%.

#### Coverage of KBAs:

- Coverage will improve for 5 KBAs.

#### Ecosystem services:

- 1.74 % increase in the PA coverage of soil organic carbon (SOC).
- 3.54 % increase in the PA coverage of areas important for SOC.

#### GCF projects

Future projects under the Green Climate Fund could be proposed, in order to make linkages between Biodiversity and climate Change conventions.

## OTHER ACTIONS/COMMITMENTS

### Leaders' Pledge for Nature

Jordan **has signed** onto the Leaders' Pledge for Nature.

Political leaders participating in the United Nations Summit on Biodiversity in September 2020, representing 84 countries from all regions and the European Union, have committed to reversing biodiversity loss by 2030. By doing so, these leaders are sending a united signal to step up global ambition and encourage others to match their collective ambition for nature, climate, and people with the scale of the crisis at hand.

### High Ambition Coalition for Nature and People

Jordan **has joined** the High Ambition Coalition for Nature and People.

The High Ambition Coalition for Nature and People (HAC) is an intergovernmental group, co-chaired by France and Costa Rica [currently including 65 countries and the European Commission]. Its objective is to support the adoption of a target aiming to protect 30% of the planet's land and 30% of its oceans by 2030 (30x30 target), within the future global framework of the Convention on Biological Diversity (CBD) for the protection of biodiversity, which is to be adopted at the next COP in China this autumn.

### Global Ocean Alliance

Jordan **has joined** the Global Ocean Alliance: 30by30 initiative.

The Global Ocean Alliance 30by30 is a UK led initiative [currently containing 53 countries as signatories]. Its aim is to protect at least 30% of the global ocean as Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) by 2030.





## ANNEX I

### FULL LIST OF TERRESTRIAL ECOREGIONS

Ecoregion Name	Area (km <sup>2</sup> )	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km <sup>2</sup> )	% Protected in Country
Arabian desert	311.8	0.0	0.3	0.0	0.0
Eastern Mediterranean conifer-broadleaf forests	6,812.1	4.8	7.6	163.5	2.4
Mesopotamian shrub desert	14,260.9	7.0	16.0	906.6	6.4
North Arabian desert	43,215.2	9.2	48.5	1,610.7	3.7
Red Sea-Arabian Desert shrublands	7,347.4	2.3	8.2	1,106.2	15.1
Syrian xeric grasslands and shrublands	17,173.9	12.5	19.3	210.2	1.2



## REFERENCES

---

- Atwood, TB, Witt, A, Mayorga, J, Hammill, E, & Sala, E. (2020). Global patterns in marine sediment carbon stocks. *Frontiers in Marine Science*.  
<https://doi.org/10.3389/fmars.2020.00165>
- BirdLife International (2021). World Database of Key Biodiversity Areas. Available at:  
<http://www.keybiodiversityareas.org>
- CBD (2010). Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting. Decision X/2. Strategic plan for biodiversity 2011–2020. Retrieved from <https://www.cbd.int/doc/decisions/cop-10/cop-10-dec02-en.pdf>.
- CSIRO (2019). Protected area connectedness index (PARCconnectedness).  
<https://www.bipindicators.net/indicators/protected-area-connectedness-index-parconnectedness>
- Dinerstein, E., et al. (2017). An ecoregion-based approach to protecting half the terrestrial realm. *BioScience* 67(6), 534-545.
- Donald et al., 2019, The prevalence, characteristics and effectiveness of Aichi Target 11's "other effective area-based conservation measures" (OECMs) in Key Biodiversity Areas. *Conservation Letters*, 12(5).
- EC-JRC (2021). DOPA Indicator factsheets: <http://dopa.jrc.ec.europa.eu/en/factsheets>
- FAO (2017). Global Soil Organic Carbon (GSOC) Map - Global Soil Partnership [WWW Document]. URL <http://www.fao.org/global-soil-partnership/pillars-action/4-information-and-data/global-soil-organic-carbon-gsoc-map/en/>.
- Franks, P and Booker, F (2018). Governance Assessment for Protected and Conserved Areas (GAPA): Early experience of a multi-stakeholder methodology for enhancing equity and effectiveness. IIED Working Paper, IIED, London. <https://pubs.iied.org/17632IIED>
- Franks, P. et al. (2018). Social Assessment for Protected and Conserved Areas (SAPA). Methodology manual for SAPA facilitators. Second edition. IIED, London.  
<https://pubs.iied.org/14659iied>
- Garnett et al. (2018). A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, 1(7), 369.
- Global Environment Facility (GEF-5 and GEF-6); all projects can be found online at:  
<https://www.thegef.org/projects>
- Gloss, L. et al. (2019). International Outlook for Privately Protected Areas: Summary Report. International Land Conservation Network (a project of the Lincoln Institute of Land Policy) and United Nations Development Programme. Summary report, and individual country profiles, available at: <https://nbsapforum.net/knowledge-base/resource/international-outlook-privately-protected-areas-summary-report>

Hansen, M.C., Potapov, P.V., Moore, R., Hancher, M., Turubanova, S.A., Tyukavina, A., Thau, D., Stehman, S.V., Goetz, S.J., Loveland, T.R., Kommareddy, A., Egorov, A., Chini, L., Justice, C.O., Townshend, J.R.G., (2013). High-Resolution Global Maps of 21st-Century Forest Cover Change. *Science* 342, 850–853. <https://doi.org/10.1126/science.1244693>

Hilty, J et al. (2020). Guidelines for conserving connectivity through ecological networks and corridors. Best Practice Protected Area Guidelines Series No. 30. Gland, Switzerland: IUCN. <https://portals.iucn.org/library/sites/library/files/documents/PAG-030-En.pdf>

IIED 2020. Site-level assessment of governance and equity (SAGE) <https://www.iied.org/site-level-assessment-governance-equity-sage>.

IUCN (2016). A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0. First edition. Gland, Switzerland: IUCN. <https://portals.iucn.org/library/sites/library/files/documents/2016-048.pdf>

IUCN-WCPA (2017). IUCN-WCPA Task Force on OECMs collation of case studies submitted 2016-2017. <https://www.iucn.org/commissions/world-commission-protected-areas/our-work/oecms/oecm-reports>

Joint Research Centre of the European Commission (JRC) (2021), The Digital Observatory for Protected Areas (DOPA) Explorer 4.1 [On-line], [Apr/2021], Ispra, Italy. Available at: <http://dopa-explorer.jrc.ec.europa.eu>

Kothari, A., et al. (Eds) (2012). Recognising and Supporting Territories and Areas Conserved By Indigenous Peoples And Local Communities: Global Overview and National Case Studies. Secretariat of the CBD, ICCA Consortium, Kalpavriksh, and Natural Justice, Montreal, Canada. Technical Series no. 64.

Lausche, B., Laur, A., Collins, M. (2021). *Marine Connectivity Conservation 'Rules of Thumb' for MPA and MPA Network Design*. Version 1.0. IUCN WCPA Connectivity Conservation Specialist Group's Marine Connectivity Working Group.

McDonald, R.I., Weber, K., Padowski, J., Flörke, M., Schneider, C., Green, P.A., Gleeson, T., Eckman, S., Lehner, B., Balk, D., Boucher, T., Grill, G., Montgomery, M., (2014). Water on an urban planet: Urbanization and the reach of urban water infrastructure. *Global Environmental Change* 27, 96–105. <https://doi.org/10.1016/j.gloenvcha.2014.04.022>

National Biodiversity Strategy and Action Plan (NBSAPs); most recent NBSAP is available at: <https://www.cbd.int/nbsap/search/>

Newbold, T., Hudson, L.N., Arnell, A.P., Contu, S., Palma, A.D., Ferrier, S., Hill, S.L.L., Hoskins, A.J., Lysenko, I., Phillips, H.R.P., Burton, V.J., Chng, C.W.T., Emerson, S., Gao, D., Pask-Hale, G., Hutton, J., Jung, M., Sanchez-Ortiz, K., Simmons, B.I., Whitmee, S., Zhang, H., Scharlemann, J.P.W., Purvis, A., (2016). Has land use pushed terrestrial biodiversity beyond the planetary boundary? A global assessment. *Science* 353, 288–291. <https://doi.org/10.1126/science.aaf2201>

Sala, E. et al. (2021). Protecting the global ocean for biodiversity, food and climate. *Nature*, 592(7854), 397-402.

Saura, S. et al. (2018). Protected area connectivity: Shortfalls in global targets and country-level priorities. *Biological Conservation*, 219, 53-67.

Saura, S. et al (2017). Protected areas in the world's ecoregions: How well connected are they? *Ecological Indicators*, 76, 144-158.

Spalding, M.D., et al. (2012). Pelagic provinces of the world: a biogeographic classification of the world's surface pelagic waters. *Ocean & Coastal Management* 60, 19–30.

Spalding, M.D., et al. (2007). Marine ecoregions of the world: a bioregionalization of coastal and shelf areas. *BioScience* 57(7): 573–583.

Spawn, S.A., Sullivan, C.C., Lark, T.J., Gibbs, H.K., (2020). Harmonized global maps of above and belowground biomass carbon density in the year 2010. *Scientific Data* 7, 112.  
<https://doi.org/10.1038/s41597-020-0444-4>

Stolton, S. et al. (2014). *The Futures of Privately Protected Areas*. Gland, Switzerland: IUCN.

UNEP-WCMC and IUCN (2021) *Protected Planet Report 2020*. UNEP-WCMC and IUCN: Cambridge UK; Gland, Switzerland.

UNEP-WCMC and IUCN (2021), *Protected Planet: The Global Database on Protected Area Management Effectiveness (GD-PAME)* [On-line], [May/2021], Cambridge, UK: UNEP-WCMC and IUCN. Available at: [www.protectedplanet.net](http://www.protectedplanet.net).

UNEP-WCMC and IUCN (2021), *Protected Planet: The World Database on Protected Areas (WDPA)* [On-line], [May/2021], Cambridge, UK: UNEP-WCMC and IUCN. Available at: [www.protectedplanet.net](http://www.protectedplanet.net).

UNEP-WCMC and IUCN (2021), *Protected Planet: The World Database on Other Effective Area-based Conservation Measures (WD-OECM)* [On-line], [May/2021], Cambridge, UK: UNEP-WCMC and IUCN. Available at: [www.protectedplanet.net](http://www.protectedplanet.net).

UN Ocean Conference Voluntary Commitments, available at:  
<https://oceanconference.un.org/commitments/>

Williams, B.A., Venter, O., Allan, J.R., Atkinson, S.C., Rehbein, J.A., Ward, M., Marco, M.D., Grantham, H.S., Ervin, J., Goetz, S.J., Hansen, A.J., Jantz, P., Pillay, R., Rodríguez-Buriticá, S., Supples, C., Virnig, A.L.S., Watson, J.E.M., (2020). Change in Terrestrial Human Footprint Drives Continued Loss of Intact Ecosystems. *One Earth* 3, 371–382.  
<https://doi.org/10.1016/j.oneear.2020.08.009>



This document was created using the knitr package with R version 4.0.3.

For any questions please contact [support@unbiodiveristylab.org](mailto:support@unbiodiveristylab.org).

