Convention on Biological Diversity

UNDP

Aichi Biodiversity Target 11 Country Dossier: KOREA (REPUBLIC OF)

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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
OECM	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-OECM	World Database on Other Effective Area-Based Conservation Measures

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.

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 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 Korea (Republic of) is 16,916.6 km^2 (17.0%) and marine coverage is 7,979.4 km^2 (2.5%).
- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs, 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:** Korea (Republic of) contains 3 terrestrial ecoregions, 3 marine ecoregions, and 1 pelagic province (all of which have at least some coverage from PAs and OECMs): the mean coverage by reported PAs and OECMs is 22.4% (terrestrial), 2.0% (marine), and <0.1% (pelagic).
- **Opportunities for action:** there is opportunity for Korea (Republic of) to increase protection in terrestrial and marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs.

Areas Important for Biodiversity

- **Status:** Korea (Republic of) has 40 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 37.8%, while 17 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Korea (Republic of) 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 Korea (Republic of), 22.5% of aboveground biomass carbon, 22.4% of belowground biomass carbon, 23.4% of soil organic carbon, 3.8% of carbon stored in marine sediments is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for Korea (Republic of) to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks. 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 9.0%.

- **Opportunities for action:** there is opportunity for a targeted increase in connecting PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving 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:** 100% of PAs in Korea currently reported in the WDPA are governed by national and local governments. 100% of MPAs are governed by cooperation among governments and local stakeholders (indigenous people, NGOs, business, etc.).

- **Opportunities for action:** explore opportunities for governance types that have lower representation, for Korea (Republic of), this could relate to shared governance, etc.

- There is also opportunity for Korea (Republic of) 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:** according to the current values in the GD-PAME, 34.2% of terrestrial PAs and 38.0% of marine PAs have completed Protected Area Management Effectiveness (PAME) assessments reported; it is noted that these records need to be updated with assessments completed after 2016 (for example, 63% of MPAs now have completed PAME assessments).

- **Opportunities for action:** there is opportunity to report all completed protected area management effectiveness (PAME) evaluations in the GD-PAME. If the 60% targets for completed management effectiveness assessments (per COP Decision X/31) have not been met for terrestrial or marine PAs, there is opportunity to increase PAME evaluations 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 Korea (Republic of). Section I of the dossier presents data on the current status of Korea (Republic of)'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 Korea (Republic of), in relation to each Target 11 element. The analyses present options for improving Korea (Republic of)'s area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Korea (Republic of)'s existing PA and OECM 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 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. 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), and these should be directed to 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 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

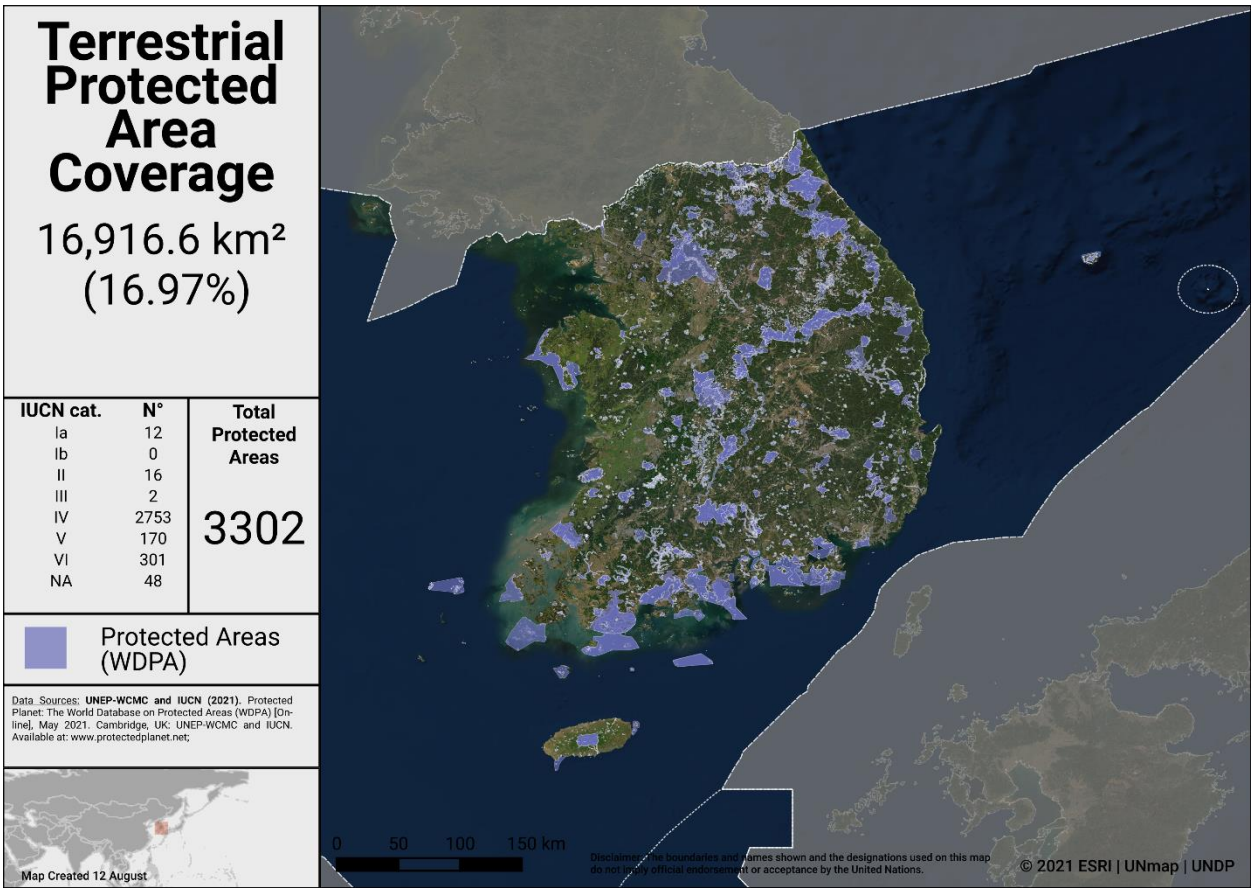
As of May 2021, Korea (Republic of) has 3467 protected areas reported in the World Database on Protected Areas (WDPA).

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

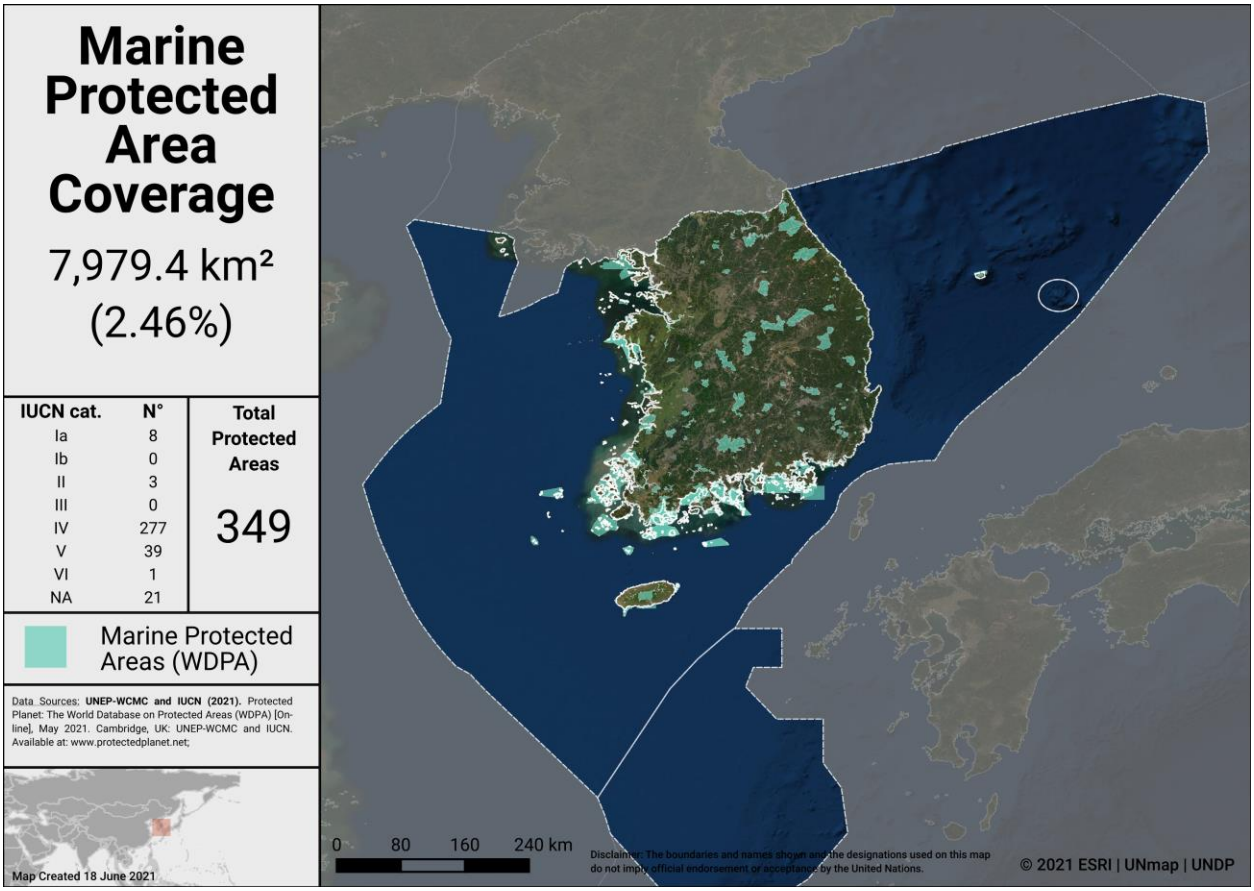
Current coverage for Korea (Republic of):

- 17.0% terrestrial (3307 protected areas, 16,916.6 km^2)
- 2.5% marine (350 protected areas, 7,979.4 km^2)

Additional data on protected areas which were omitted, as well as newly designated sites, will be submitted to WDPA by the end of this year



Terrestrial Protected Areas in Korea (Republic of)



Marine Protected Areas in Korea (Republic of)

Potential OECMs

Potential OECMs in Korea (Republic of) could include:

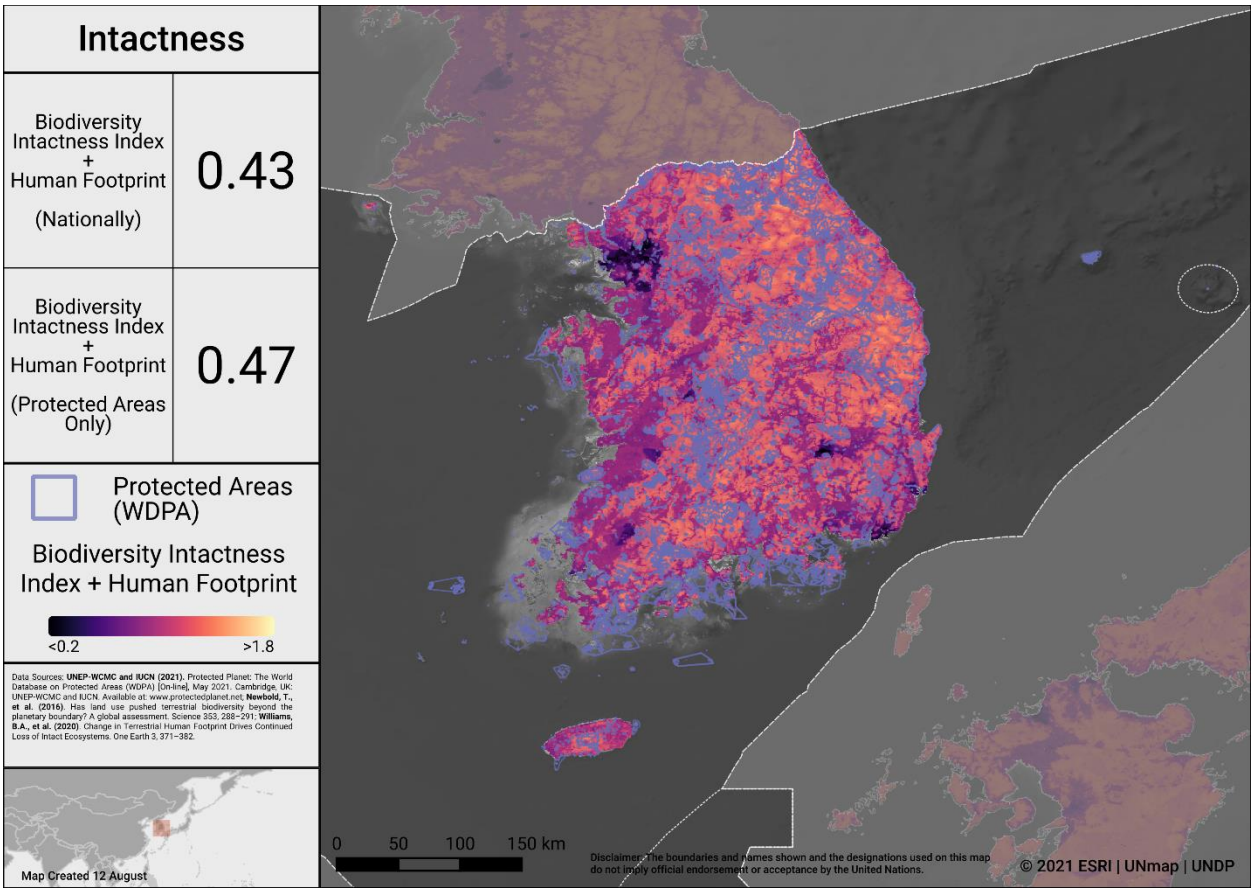
1) Preservation Districts for creation of Environmentally-Friendly Rivers (total coverage still Undecided)
2) Natural Resting Area (total coverage still Undecided)
3) Development Restriction Zone (total coverage still Undecided)
4) Restored coastal wetland areas: the Korean government has made endeavors to restore ecosystems of abandoned or destroyed coastal wetland areas under reclamation projects for fish farms, salt pans and industrial zone. 1.5 km^2 of coastal wetlands were restored from 2010-2020. The government is planning to restore a further 4.5 km^2 of wetland areas by 2025. After the restoration process, the status of ecosystem of the areas will continue to be monitored and managed in sustainable manner by local governments and people. Moreover, the government has been working on developing additional OECMs in coastal and marine areas in cooperation

with experts from institutes, universities. Added tidal flat restoration projects, as an offshore part OECM. Referring to the Ministry of Oceans and Fisheries data, input data on the area of tidal flat restoration from 2010 to 2020 and target data by 2025

See following sections for information on governance and conservation effectiveness of potential OECMs.

Opportunities for action

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



Intactness in Korea (Republic of)

To explore more on intactness visit the UN Biodiversity Lab: 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).

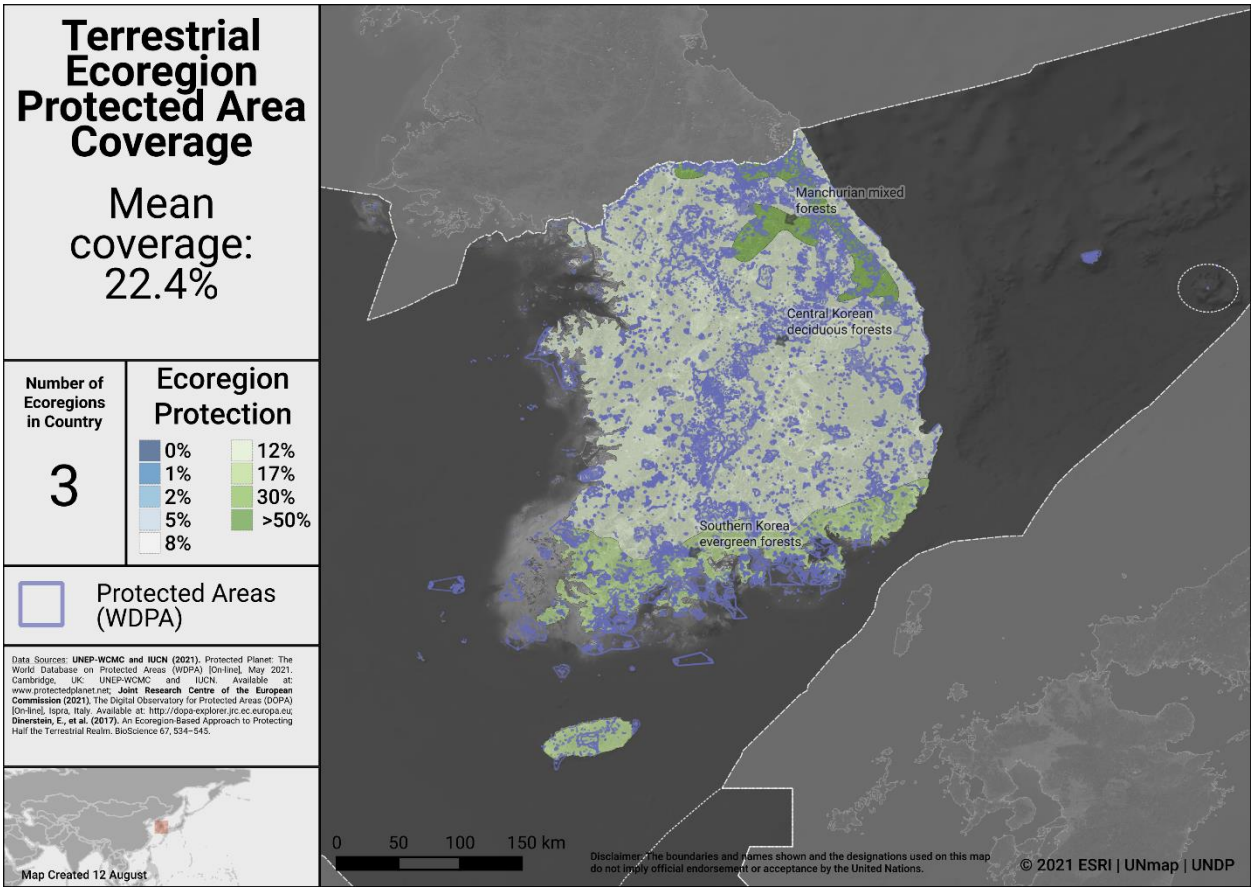
Korea (Republic of) has 3 **terrestrial** ecoregions. Out of these:

- All 3 ecoregions have at least some coverage from PAs and OECMs.
- 2 ecoregions have at least 17% protected within the country.
- The average coverage of terrestrial ecoregions is 22.4%.

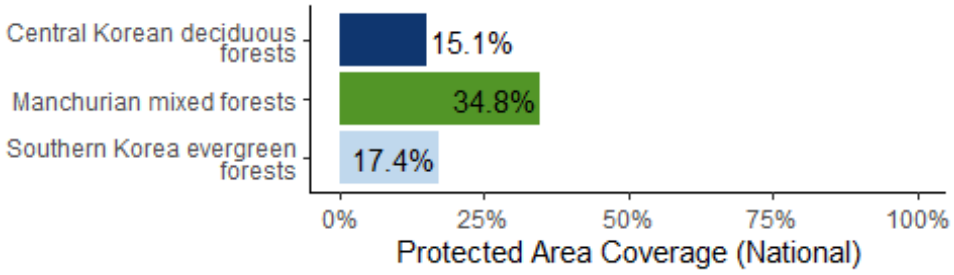
Korea (Republic of) has 3 **marine** ecoregions and 1 **pelagic province**. Out of these:

- All 3 marine ecoregions and 1 pelagic province have at least some coverage from reported PAs and OECMs.
- 0 marine ecoregions and 0 pelagic provinces have at least 10% protected within Korea (Republic of)'s exclusive economic zone (EEZ).
- The average coverage of marine ecoregions is 2.0% and the coverage of the 1 pelagic province is <0.0%.

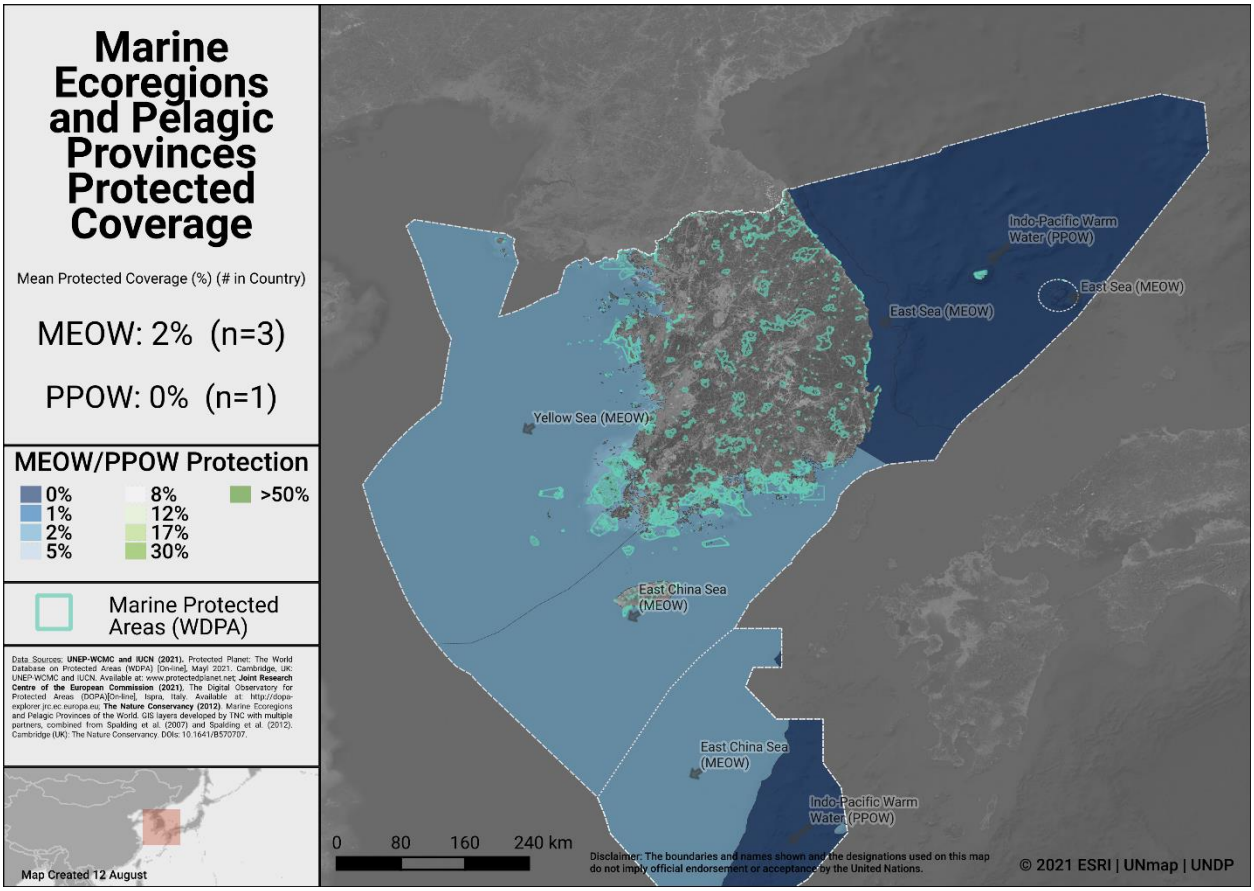
A full list of terrestrial ecoregions in Korea (Republic of) is available in Annex I.



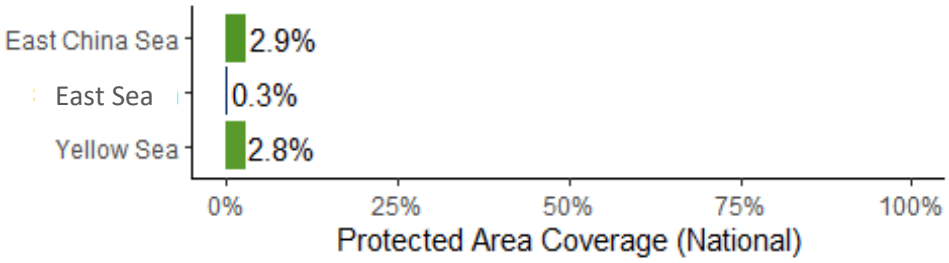
Terrestrial ecoregions in Korea (Republic of)



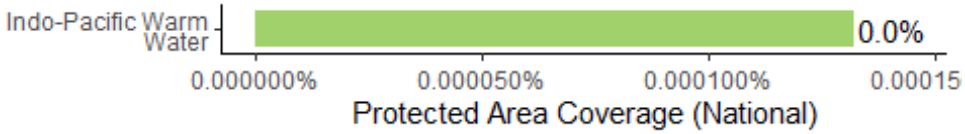
Terrestrial ecoregions of the World (TEOW) in Korea (Republic of)



Marine ecoregions and pelagic provinces



Marine Ecoregions of the World (MEOW) in Korea (Republic of)



Pelagic Provinces of the World (PPOW) in Korea (Republic of)

Opportunities for action

There is opportunity for Korea (Republic of) to increase protection in terrestrial and marine ecoregions and pelagic provinces 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.

Korea (Republic of) has **40** Key Biodiversity Areas (KBAs).

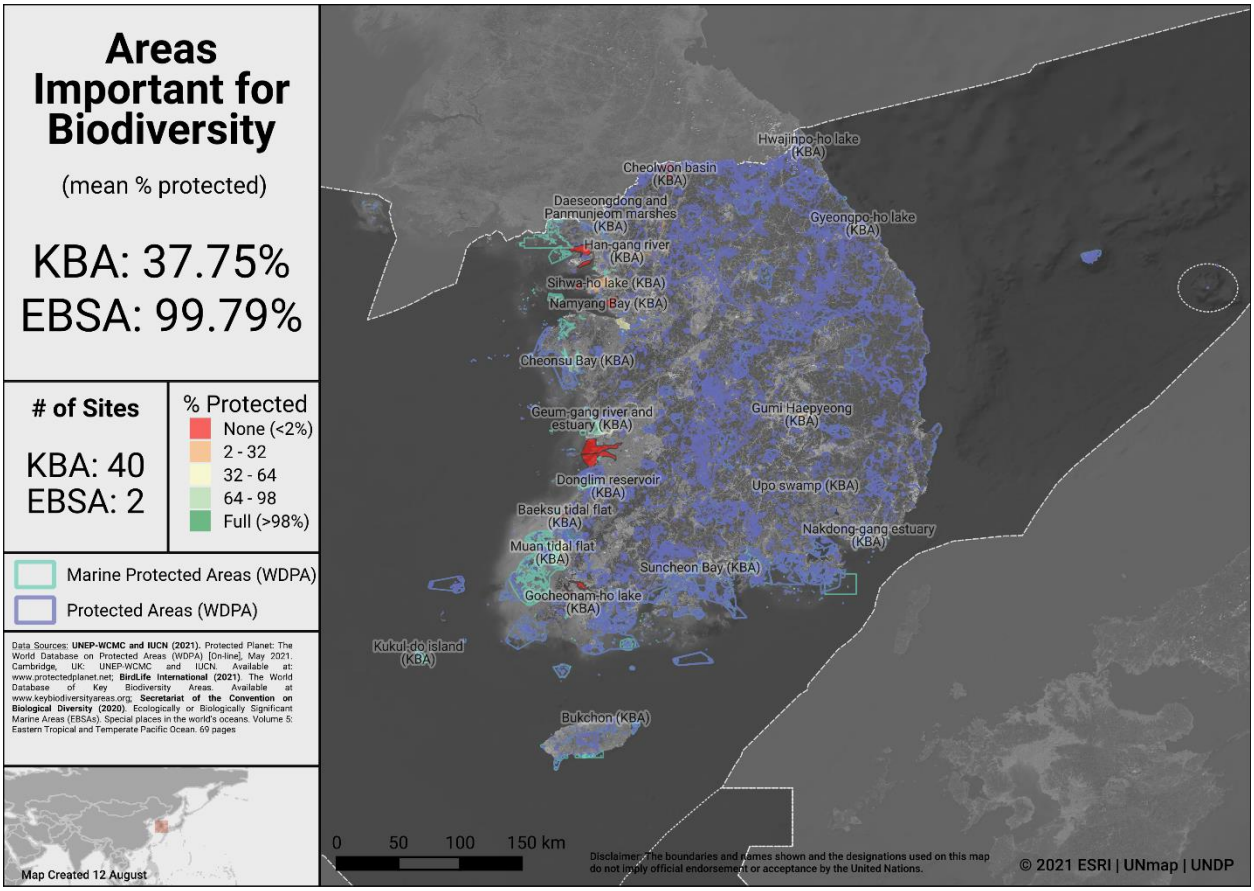
- Mean percent coverage of all KBAs by PAs and OECMs in Korea (Republic of) is **37.8%**.
- **7** KBAs have full (>98%) coverage by PAs and OECMs.
- **16** KBAs have partial coverage by PAs and OECMs.
- **17** KBAs have no (<2%) coverage by PAs and OECMs.

The data will be updated if OECMs from Korea (Republic of) are reported to WD-OECMs

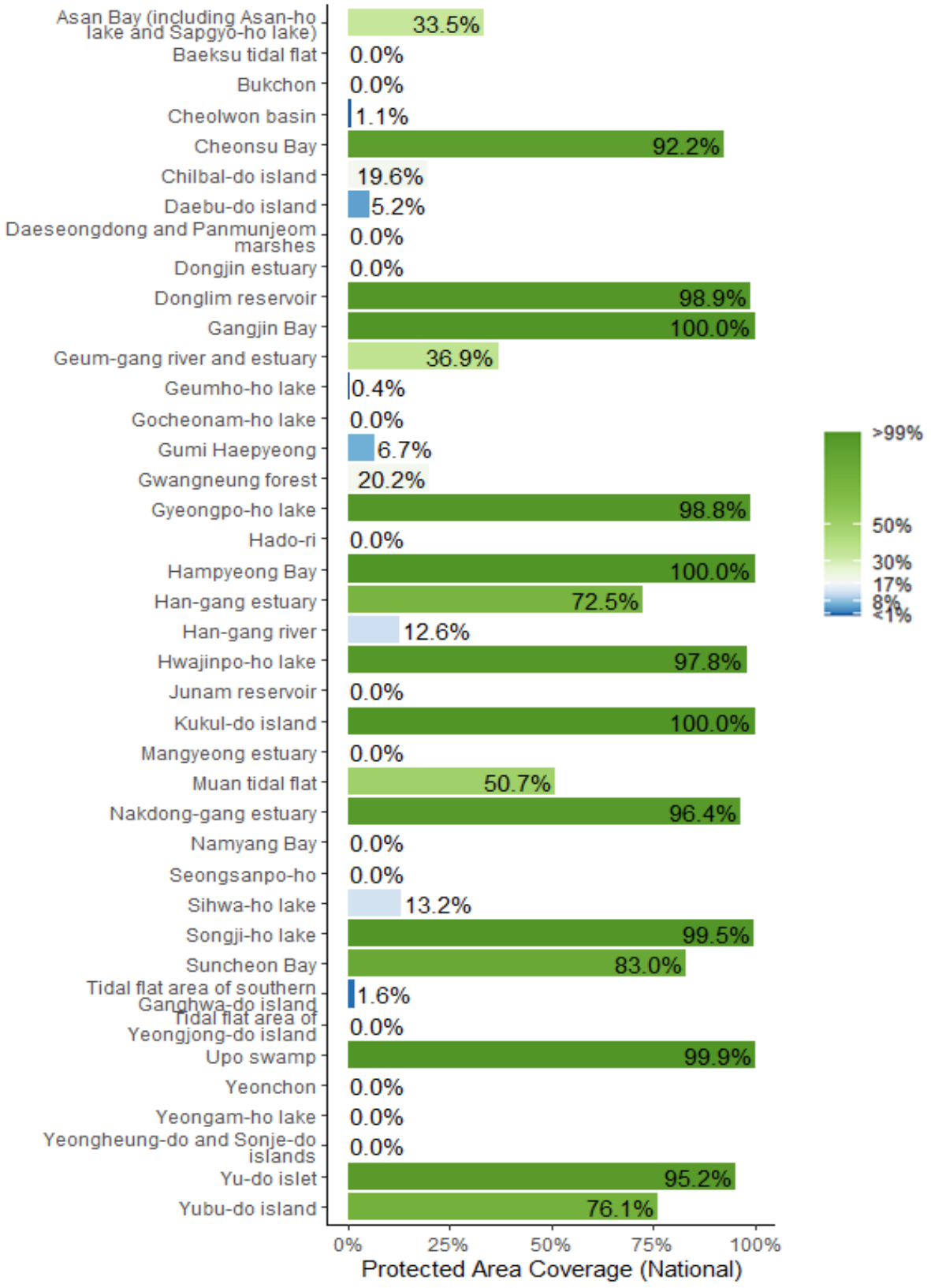
Ecologically or Biologically Significant Marine Areas (EBSAs)

Other important areas for biodiversity may also include Ecologically or Biologically Significant Marine Areas (EBSAs), which were identified following the scientific criteria adopted at COP-9 (Decision IX/20; see more at: https://www.cbd.int/ebsa/). Sites that meet the EBSA criteria may require enhanced conservation and management measures; this could be achieved through means including MPAs, OECMs, marine spatial planning, and impact assessment.

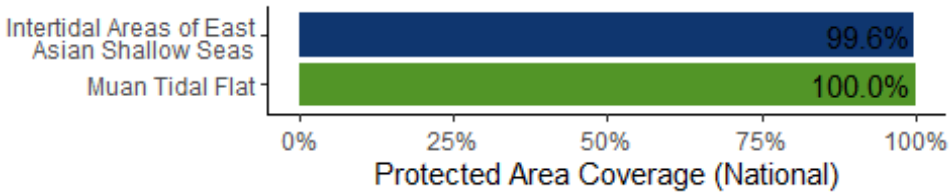
There are 2 EBSAs with some portion of their extent within Korea (Republic of)'s EEZ, both of which have full (>98%) coverage from PAs and OECMs.



Areas Important for Biodiversity in Korea (Republic of)



Key Biodiversity Area Coverage (KBA) in Korea (Republic of)



Ecologically or Biologically Significant Marine Areas (EBSAs) in Korea (Republic of)

Opportunities for action

There is opportunity for Korea (Republic of) 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.

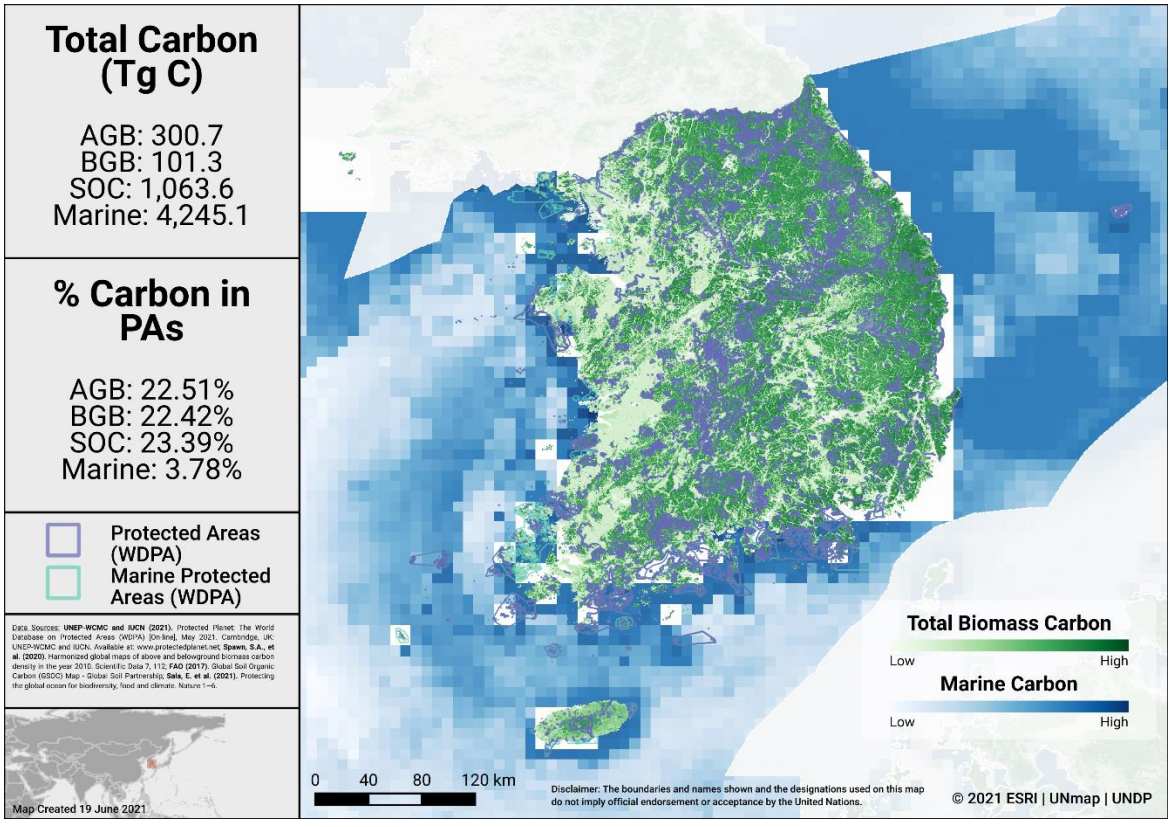
AREAS IMPORTANT FOR ECOSYSTEM SERVICES

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 Korea (Republic of) and the percent of carbon in protected areas. The total carbon stocks is 300.7 Tg C from aboveground biomass (AGB), with 22.5% in protected areas; 101.3 Tg C from below ground biomass (BGB), with 22.4% in protected areas; 1,063.6 Tg C from soil organic carbon (SOC), with 23.4% in protected areas; and 4,245.1 Tg C from marine sediment carbon, with 3.8% in protected areas.



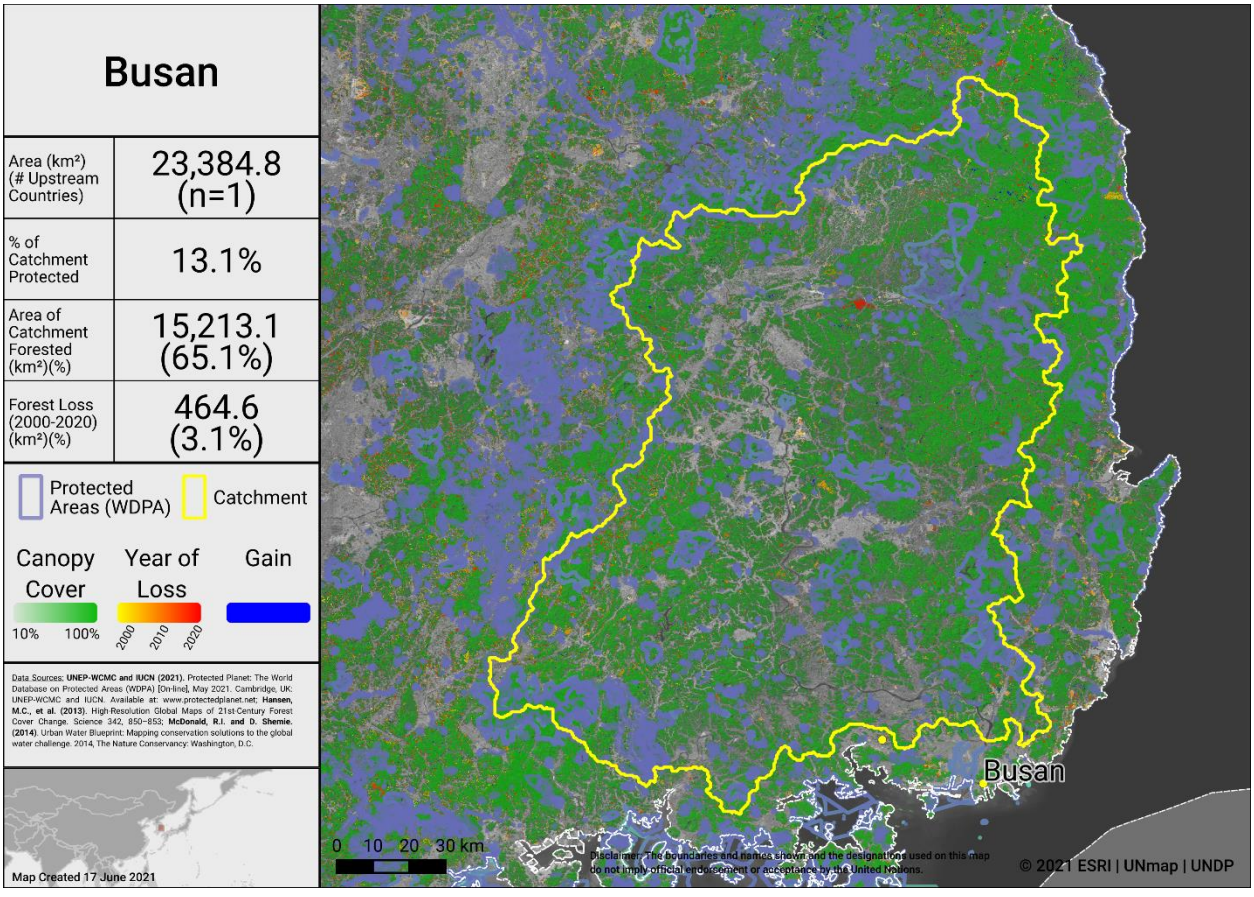
Carbon Stocks in Korea (Republic of)

Water

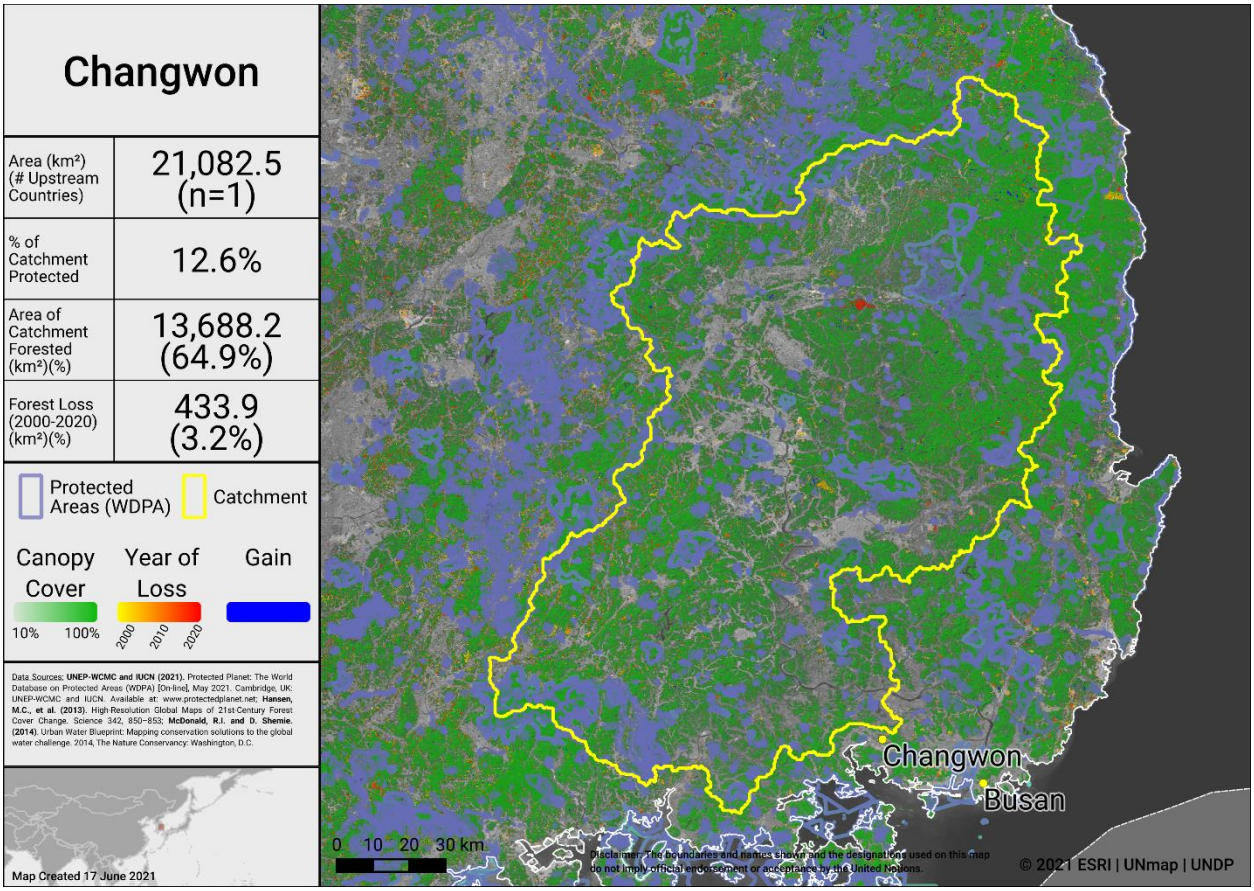
Information on the water sources for 534 cities is available via the City Water Map (CWM) and provides details on the catchment area of the watershed that supplies these cities (see McDonald et al., 2014 for details on methodology).

Forests 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).

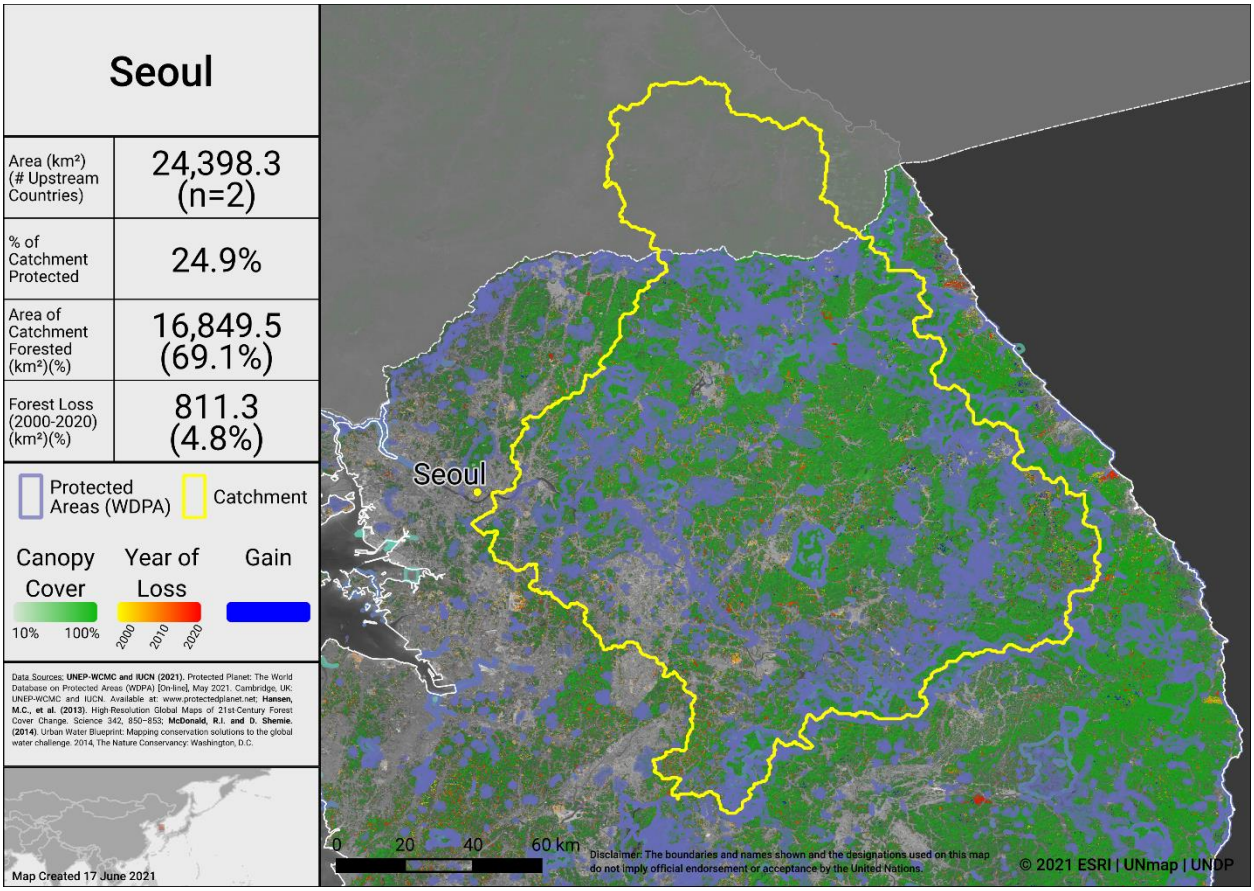
Drinking water supplies for cities in Korea (Republic of) may similarly depend on protected forest areas within and around water catchments. The maps below show the percentage forest cover and the forest loss from 2000-2020 in the most heavily populated water catchments of Korea (Republic of). Intact catchments can support more consistent water supply and improved water quality.



Water catchment in Busan



Water catchment in Changwon



Water catchment in Seoul

Opportunities for action

For carbon, there is opportunity for Korea (Republic of) 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 Korea (Republic of) was 9.0%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Korea (Republic of) is 0.24. This represents no significant change since 2010.

Corridor case studies

There are no potential OECM examples for Korea (Republic of) (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 targeted designation of PAs or OECMs in strategic locations for connectivity and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving 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.

According to Korea's Ministry of Maritime Affairs and Fisheries: 100% of MPAs in Korea are governed by cooperation among governments and local stakeholders (indigenous people, NGOs, business, etc.). A management committee needs to be established by law after the designation of MPA site in Korea. The member of management committee is composed of governments, local people, NGOs, business and academia. After the designation of a marine protected area, a 'regional management committee' with the participation of the government and local stakeholders is installed and operated according to the law, so it needs to be modified because 100% governance and related stakeholders are participating.

As of May 2021, nationally designated protected areas by national laws were reported to WDPA. In the future, OECMs, Privately Protected Areas, and etc. will be reported to UNEP-WCMC accordingly, and governance types will be diverse in the Republic of Korea.

100% of PAs in Korea currently reported in the WDPA[1] are governed by national and local governments.

OECMs

As of May 2021, there are **0** OECMs in Korea (Republic of) reported in the WD-OECM, however, information is available for several types of potential OECM:

1) Preservation Districts for creation of Environmentally-Friendly Rivers: Governance by National ministry (Ministry of Land, Infrastructure and Transport)
2) Natural Resting Area: Governance by Sub-national ministry or agency (Local government)
3) Development Restriction Zone: Governance by National ministry (Ministry of Land, Infrastructure and Transport)
4) Restored coastal wetland areas: Korean government has made endeavors to restore ecosystem of abandoned or destroyed coastal wetland areas under reclamation projects for fish farms, salt pans and industrial zone. After restoration process, status of ecosystem of the areas is continued to be monitored and managed in sustainable manner by local governments and people. Moreover, the government has been working on developing additional OECMs in coastal and marine areas in cooperation with experts from institutes, universities .

[1] 0.4% of sites currently listed in the WPDA **do not** report a governance type (all of these are international designations, and all governed by national and local governments

Privately Protected Areas (PPAs)

From Country reviews presented in Stolton et al 2014:

- 10 PPAs have been established or recognized.
- These PPAs cover > 0.38 km^2.

Territories and areas conserved by Indigenous Peoples and local communities (ICCAs)

There is currently no data available on ICCAs for Korea (Republic of) (see Kothari et al., 2012 and the ICCA Registry for further details).

Other Indigenous lands

There is currently no data available on lands managed and/or controlled by Indigenous Peoples in Korea (Republic of) (see Garnett et al 2018 for details).

Opportunities for action

Explore opportunities for governance types that have lower representation, for Korea (Republic of) this could include shared governance, etc.

There is also opportunity for Korea (Republic of) 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.

The Republic of Korea has noted that: there is missing data that needs to be updated in the GD-PAME. In 2016, there were more protected areas where management effectiveness evaluations have been done using Korea SOP. Data for METT and MPA methodologies after 2017 would need to be updated as well.

It was also noted that: the government should develop a management plan for each MPA every five years, following its designation. So far, 63% of MPAs have completed PA Management Effectiveness (PAME) assessments (data in the GD-PAME needs to be updated).

Protected area management effectiveness (PAME) assessments

As of May 2021, Korea (Republic of) has 3467 PAs reported in the WDPA; of these PAs, 735 (21.2%)[2] have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 5.8% (5,794 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 34.2% of the area of terrestrial PAs have completed evaluations.
- 0.9% (3,034 km^2) of the marine area of the country is covered by PAs with completed management effectiveness evaluations.
  - 38.0% 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 not** been met for marine PAs [the target may be met already for MPAs, data in the GD-PAME needs to be updated].

OECMs

As of May 2021, there are 0 OECMs in Korea (Republic of) reported in the WD-OECM however, information is available for several types of potential OECM:

1) Preservation Districts. *Conservation effectiveness*: If necessary for the preservation or restoration of river environment, etc. within a river area or for the use of riverine

[2] These include: Korea SOP (706), METT (26), and MPA (3).

space, a river management agency may designate a district for preservation, a district for restoration, and hydrophilic district when establishing a basic river plan.

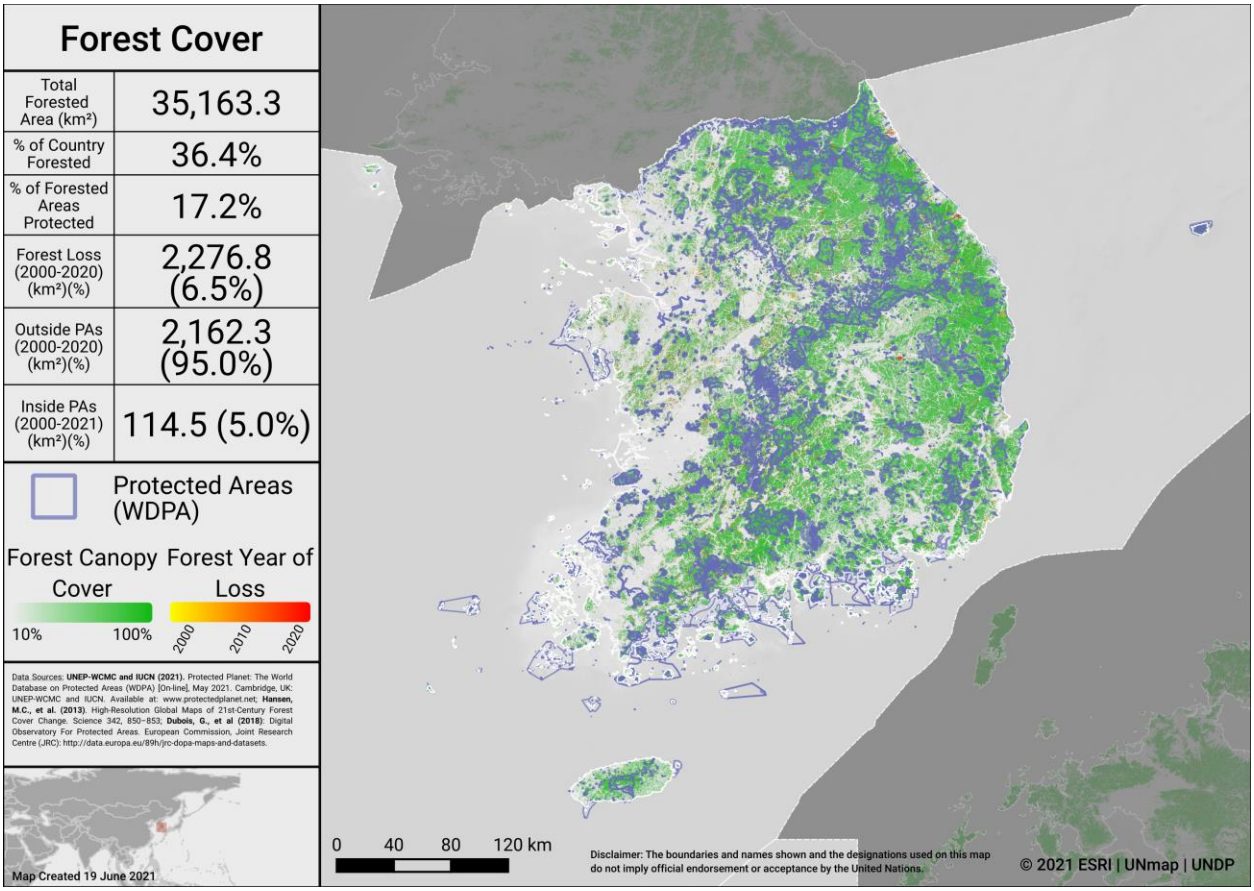
2) Natural Resting Area. *Conservation effectiveness:* High ecological, scenic value, etc. and is suitable for investigation into nature, ecological education, etc. from among areas which are not designated by other Acts as parks, tourist facility complexes, natural recreation forests, etc. in accordance with Presidential Decree.

3) Development Restriction Zone. *Conservation effectiveness*: Where the Minister of Land, Infrastructure and Transport deems it necessary to restrict urban development in order to prevent urban sprawl and ensure a healthy living environment for citizens by conserving the natural environment of surrounding cities

4) Restored coastal wetland areas: After restoration process, status of ecosystem of the areas is continued to be monitored and managed in sustainable manner by local governments and people.

Changes in forest cover in protected areas and OECMs

Forested areas in Korea (Republic of) cover approximately 36.4% of the country, an area of 35,163.3 km^2. Approximately 17.2% (6,041.4 km^2) of this is within the protected area estate of Korea (Republic of). Over the period 2000-2020 loss of forest cover amounted to over 2,276.8 km^2, or 2.4% of the country (6.5% of forest area), of which 114.5 km^2 (5.0% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Korea (Republic of) from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss.



Forest Cover and Forest Loss in Korea (Republic of)

Opportunities for action

There is opportunity to report all completed protected area management effectiveness (PAME) evaluations in the GD-PAME. If the 60% targets for completed management effectiveness assessments (per COP Decision X/31) have not been met for terrestrial or marine PAs, there is opportunity to increase PAME evaluations 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

PRIORITY ACTIONS FROM 2015-2016 REGIONAL WORKSHOPS

National priority actions for Aichi Biodiversity Target 11 were provided by Parties following a series of regional workshops in 2015 and 2016. The Capacity-building workshop for East Asia and Southeast Asia on achieving Aichi Biodiversity Targets 11 and 12 took place 15 - 18 September 2015 in Yanji, Jilin Province, China. Progress towards the quantitative targets for marine and terrestrial coverage has been assessed based on data reported in the WDPA and WD-OECM as of 2021. For more information, see the workshop report at: https://www.cbd.int/meetings/

The following actions were identified during the workshops:

Terrestrial coverage:

1) Korea is also striving to expand per capita size of national park from 132 m^2 to 153m^2
2) expand Forest Genetic Resources Reserve to 1500 km^2 (currently 1,318)
3) Increase the number of protected areas, and identify potential protected areas to be included in conservation programs

[***completed***].

Marine coverage: Increase the number of Marine Protected Areas to 12 [***completed***].

Ecological representation: National Plan for Expanding Protected Areas.

Areas Important for biodiversity and ecosystem services: National Plan for Expanding Protected Areas.

Connectivity: Restore over 60% of 0.175 km^2 damaged areas. Promotion Plan for Connection and Restoration of Hanbando Core Ecological Axes established.

Management effectiveness: 70% of terrestrial protected areas and 70% of marine protected areas will be evaluated, up from the current 42% and 20% respectively.

Governance and Equity: No actions were identified for this element of Target 11.

Integration: The Korean government would expand the special protection zone from 3.5% to 5%, where the entry of the general public is banned for a certain period of time to protect key natural resources, legally protected species and their habitat. This is based on the understanding that risk factors should be prevented in a preemptive manner to maintain the health of ecosystem and increase biodiversity.

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

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

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

Strategy 3. Strengthening biodiversity conservation (Target of 17% terrestrial coverage by 2021)

- 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.

Strategy 3. Strengthening biodiversity conservation (Target of 10% marine coverage by 2021)

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **NO (but post-2020 target)**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **24,520 km²** (by 2021).

UN OCEAN CONFERENCE VOLUNTARY COMMITMENTS

Voluntary commitments for the UN Ocean Conference are initiatives voluntarily undertaken by governments, the UN system, non-governmental organizations, among other actors—individually or in partnership—that aim to contribute to the implementation of SDG 14 (here we focus in particular on SDG 14.5). The registry of commitments was opened in February 2017, in the lead up to the first UN Ocean Conference (5 to 9 June 2017).

Other Ocean Actions

Other Ocean Actions submitted as voluntary commitments for SDG 14.5, will also create benefits for the qualifying elements of Aichi Biodiversity Target 11:

#OceanAction16926: Management of marine environment around the Korean Peninsula, by Ministry of Oceans and Fisheries, Republic of Korea (Government).

- Types of actions involved: effective MPA management; restoring tidelands.
- Target 11 element addressed: Effectively managed.
- Progress report: No progress report submitted (as of May 2021).
- Further details available at: https://oceanconference.un.org/commitments/?id=16926

OTHER ACTIONS/COMMITMENTS

Leaders' Pledge for Nature

Korea (Republic of) **has** signed onto the Leaders' Pledge for Nature.

Political leaders participating in the United Nations Summit on Biodiversity in September 2020, representing 88 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

Korea (Republic of) **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

Korea (Republic of) **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^2)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km^2)	% Protected in Country
Central Korean deciduous forests	76,153.4	72.8	75.7	11,502.7	15.1
Manchurian mixed forests	5,743.7	1.1	5.7	1,996.7	34.8
Southern Korea evergreen forests	14,724.6	100.0	14.6	2,557.7	17.4

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