

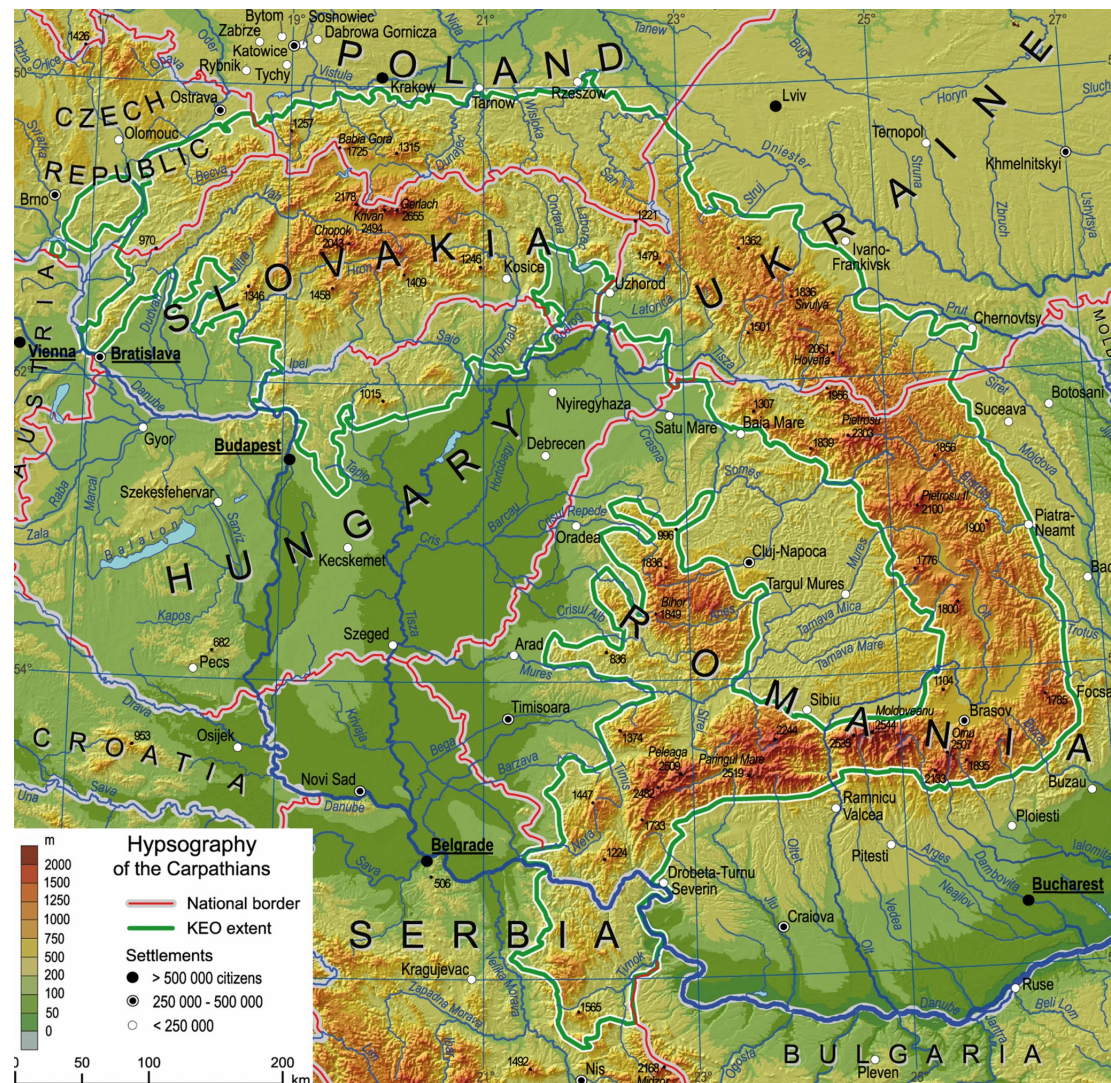


Biodiversity Targets in the Carpathians:
SDGs, Aichi Targets, and Post-2020
Possibilities

10/03/2020-11/03/2020

The Carpathians at a glance

- Largest, longest, most twisted and fragmented mountain range in Europe
- Providing essential ecosystem goods to communities in seven countries (Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia, Ukraine)
- Over 50% of the territory natural and semi-natural forests



Mountains and Biodiversity Targets

- **Sustainable Development Goals (SDGS)**

- Target 15.4



- **Strategic Plan for Biodiversity 2011-2020**

- Aichi Biodiversity Targets 11 and 14

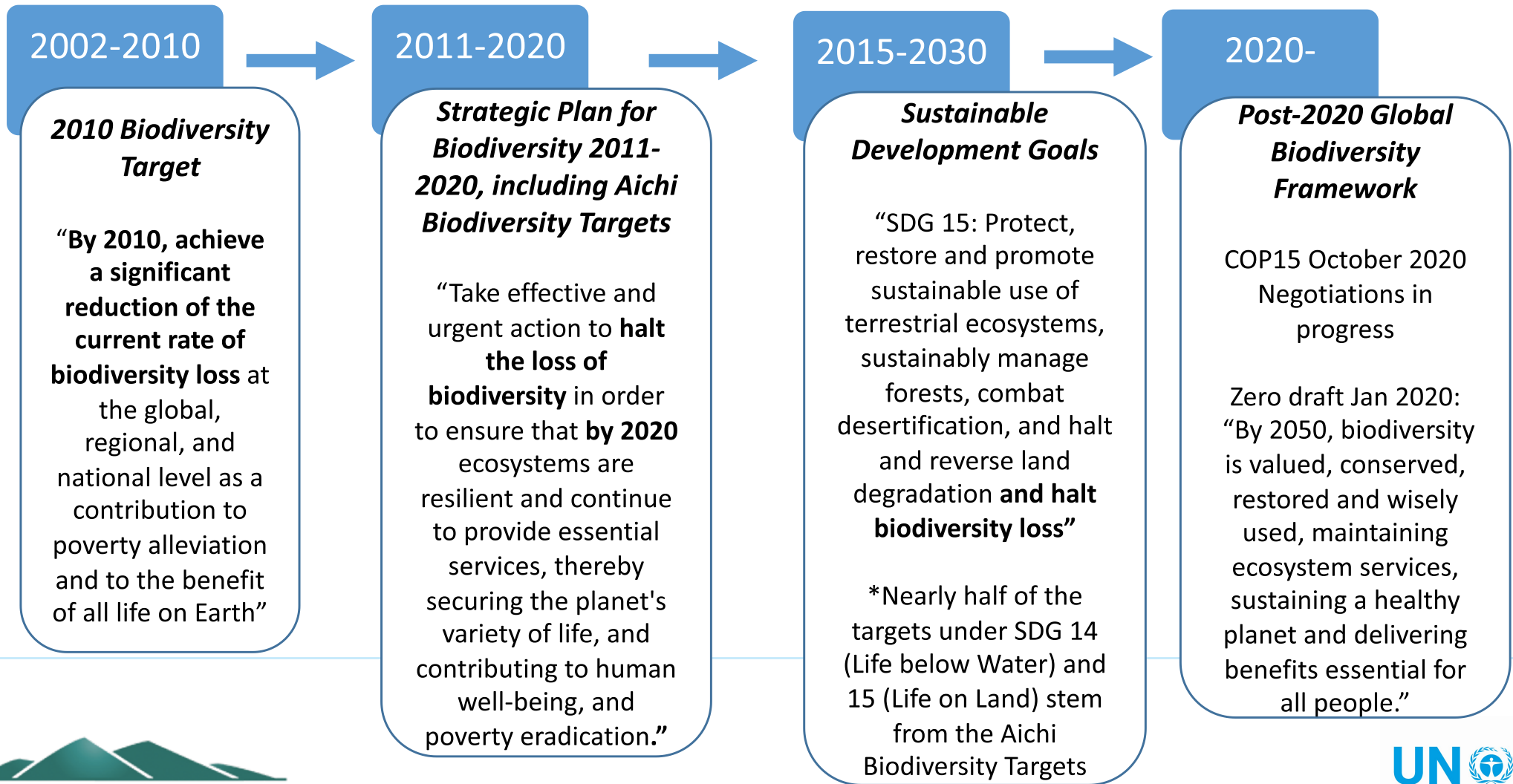


- **Post-2020 Global Biodiversity Framework**

- Proposed targets/indicators in Zero Draft



Comparison of Biodiversity Targets



Sustainable Development Goal 15.4

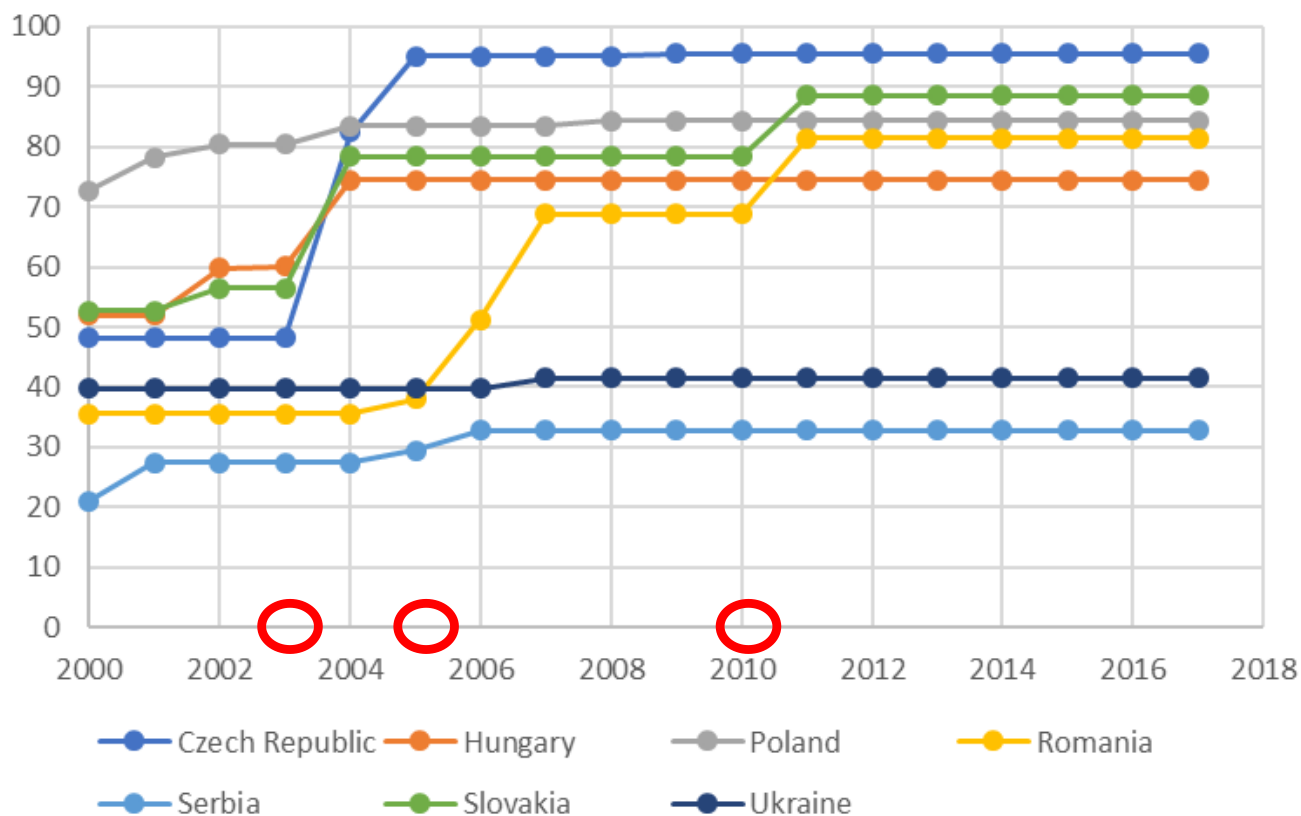


Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

- **Indicator 15.4.1:** Coverage by protected areas of important sites for mountain biodiversity
- **Indicator 15.4.2:** Mountain Green Cover Index

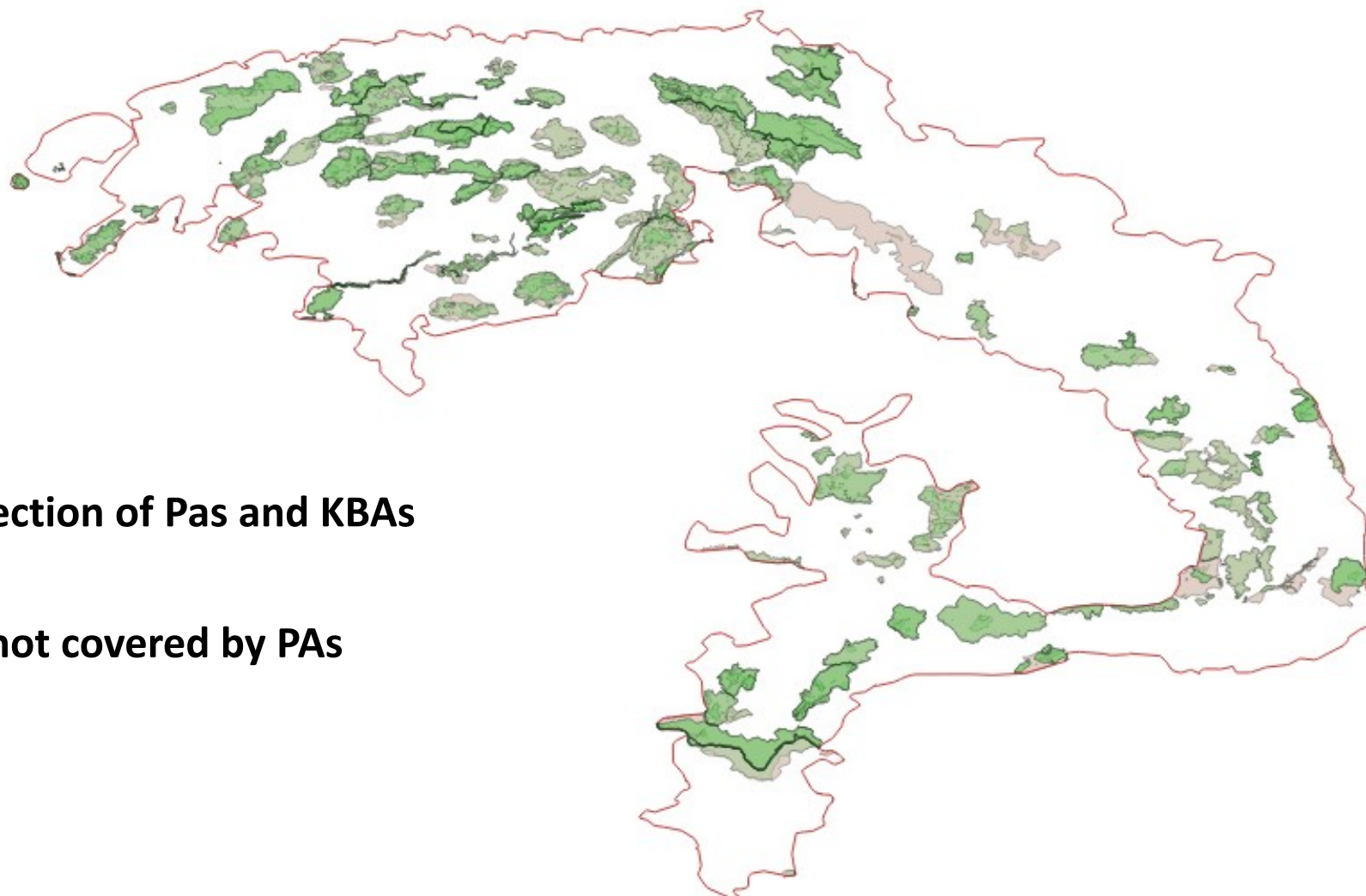
SDG Indicator 15.4.1

Per cent Coverage by Protected Areas of Important Sites for Mountain Biodiversity (SDG 15.4)



- High coverage at country level as of 2017
- Web resource illustrating indicator at mountain range level currently being developed with partners

PA Coverage of KBAs in KEO Boundary



- Intersection of Pas and KBAs



- KBAs not covered by PAs

SDG Indicator 15.4.2

Country	Mountain Green Cover Index (% covered) (Data only available for 2017)
Czech Republic	95%
Hungary	94%
Poland	93%
Romania	97%
Serbia	98%
Slovakia	98%
Ukraine	98%

The Green Cover Index is meant to measure **the changes of the green vegetation in mountain areas** - i.e. forest, shrubs, trees, pasture land, crop land, etc. – in order to monitor progress on the mountain target.

Aichi Biodiversity Targets



- Criticism that indicators make it difficult to track progress



MENU ▾ **nature**

The Aichi targets failed, in part, because their format makes progress hard to measure. Ahead of this year's talks, a group of researchers led by Elizabeth Green at the Centre for Conservation Science in Sandy, UK, scanned the literature for mentions of the Aichi targets since 2010. The team then invited an expert group to score the targets on a scale of one to ten. All of the targets scored highly for being comprehensive, but most scored relatively poorly on being measurable and realistic (E. J. Green *et al. Conserv. Biol.* **33**, 1360–1369; 2019).

Aichi Biodiversity Target 11



• **Target 11:** By 2020, at least **17 per cent of terrestrial and inland water areas** 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 landscape and seascape.

Aichi Biodiversity Target 11: Indicators



Generic Indicator	Specific Indicator
Trends in area of terrestrial and inland water areas conserved	<ul style="list-style-type: none"> • % of terrestrial and inland water areas covered by protected areas • % of terrestrial and inland water area and or marine and coastal areas covered by other effective area-based conservation measures (OECM), # and extent of important sites for biodiversity covered by OECM • Trends in the appropriate recognition of OECM and appropriate support
Trends in areas of particular importance for biodiversity conserved	<ul style="list-style-type: none"> • Protected area coverage of key biodiversity areas (including important bird and biodiversity areas, alliance for zero extinction sites)
Trends in areas of particular importance for ecosystem services conserved	<ul style="list-style-type: none"> • <i>No specific indicators identified</i>
Trends in ecological representativeness of areas conserved	<ul style="list-style-type: none"> • Protected area coverage of terrestrial and marine ecoregions • Species protection index • Protected Area Representativeness Index
Trends in effectiveness and/or equitability of management of conserved areas	<ul style="list-style-type: none"> • Protected area management effectiveness • The Wildlife Picture Index (disaggregated by protected area)- for tropical forests
Trends in connectivity and integration of conserved areas	<ul style="list-style-type: none"> • Protected Area Connectedness Index
Trends in area of coastal and marine areas conserved	

Aichi Biodiversity Target 14



- **Target 14:** By 2020, **ecosystems that provide essential services**, including services related to water, and contribute to health, livelihoods and well-being, **are restored and safeguarded**, taking into account the needs of women, indigenous and local communities and the poor and vulnerable

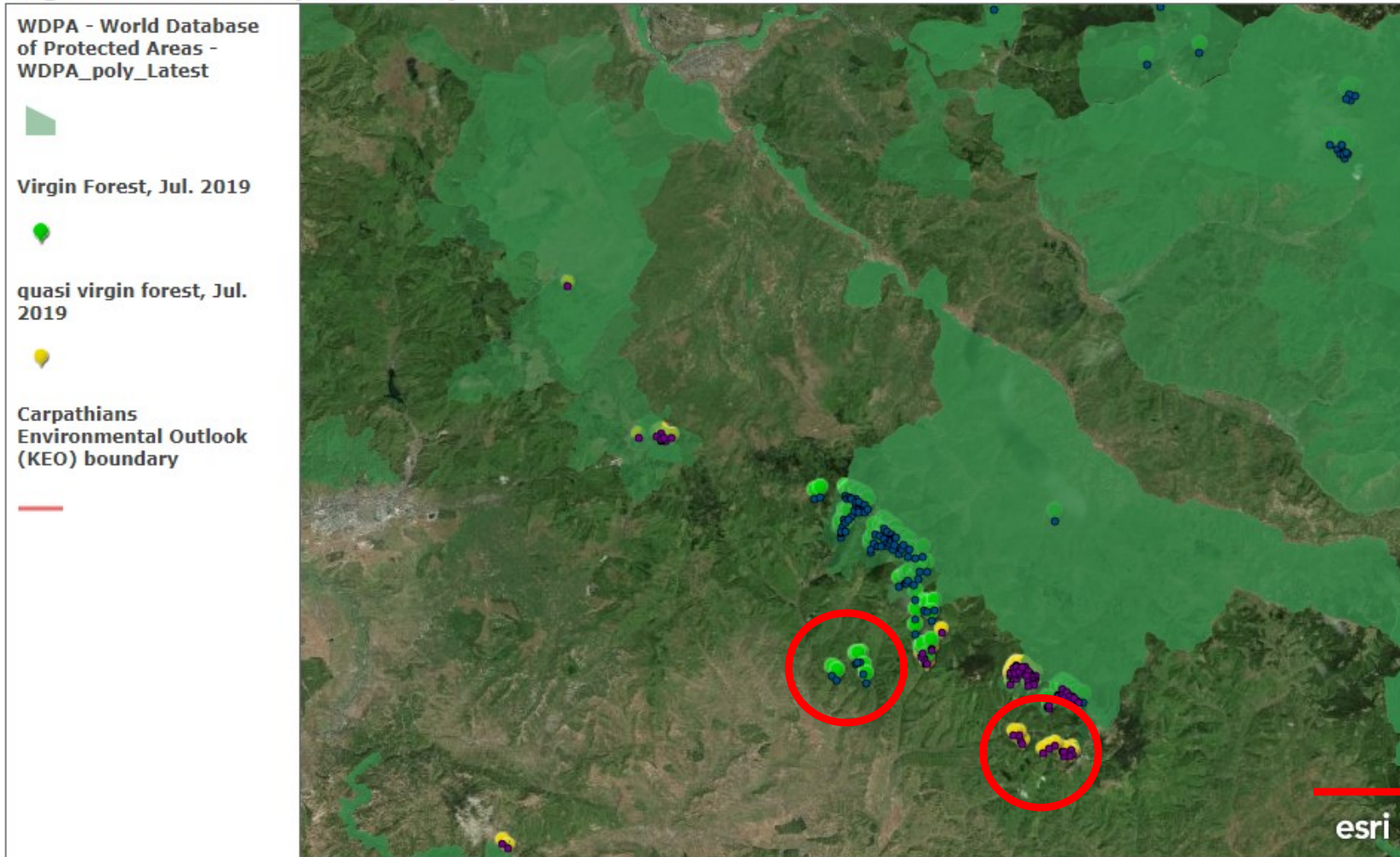
Aichi Biodiversity Target 14: Indicators



Generic Indicator	Specific Indicator
Trends in safeguarded ecosystems that provide essential services	<ul style="list-style-type: none"> • <i>No specific indicators identified</i>
Trends in extinction risk and populations of species that provide essential services	<ul style="list-style-type: none"> • Red List Index (species used for food and medicine; pollinating species) • Living Planet Index • Species Habitat Index
Trends in benefits from ecosystem services	<ul style="list-style-type: none"> • Better Life Index • Mountain Green Cover Index (Indicator for SDG Target 15.4) • Coverage by protected areas of important sites for mountain biodiversity (Indicator for SDG Target 15.4) • Ocean Health Index
Trends in restoration of ecosystems that provide essential services	<ul style="list-style-type: none"> • <i>No specific indicators identified</i>
Trends in the degree to which ecosystem services provides for the needs of women, indigenous and local communities, and the poor and vulnerable	<ul style="list-style-type: none"> • Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) • Percentage of population using safely managed drinking water services

Snapshot of Virgin Forest Inventory/WDPA Data

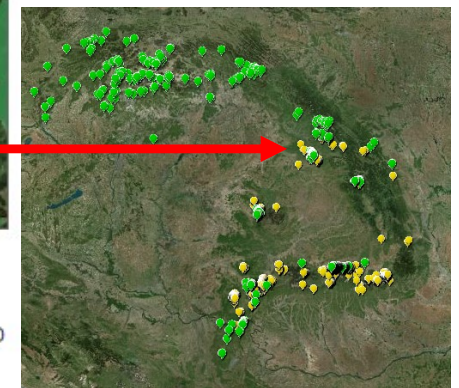
Virgin forest inventory of the Carpathians



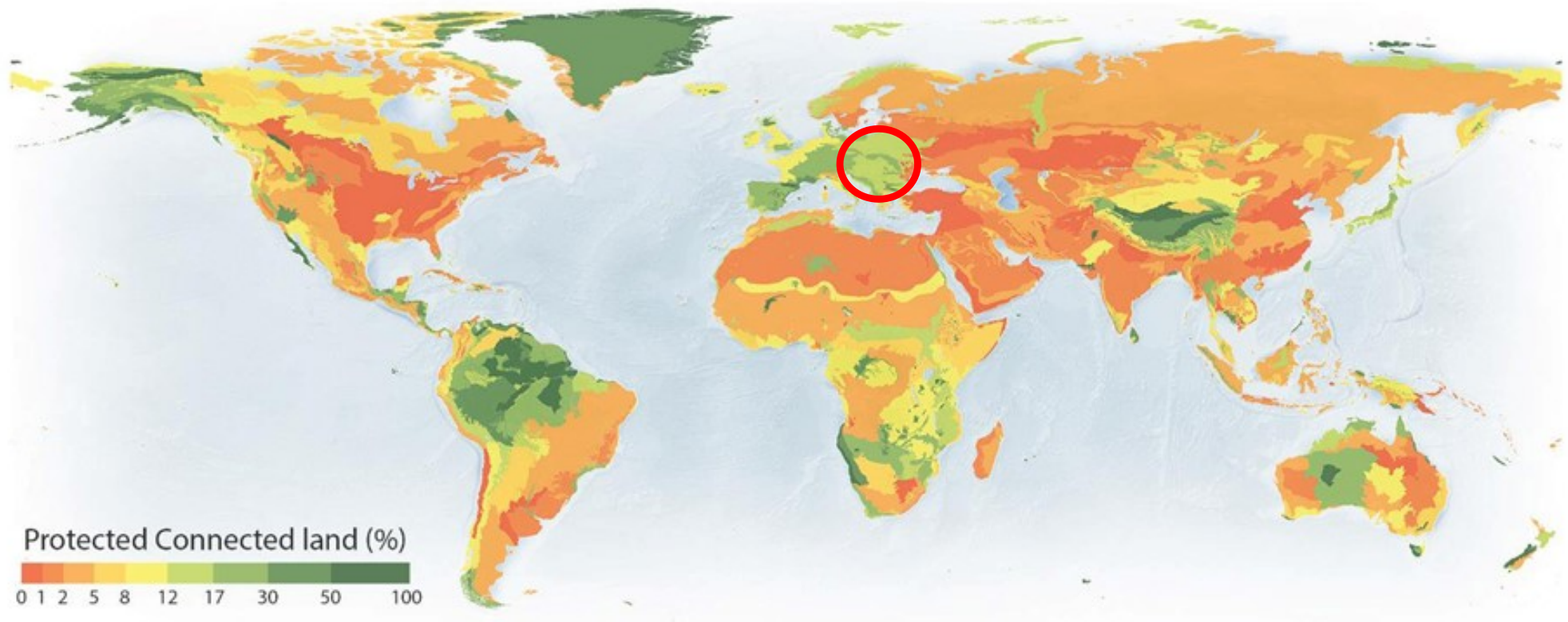
~96% of virgin forests in PAs
~94% of quasi-virgin in PAs

The map is reflecting the location (point) of the last virgin forests identified by each Carpathians Convention Member, namely Czech Republic, Hungary, Romania, Poland, Serbia, Slovakia, and Ukraine.

ETCULS-UMA | © 2020 Microsoft Corporation, Earthstar Geographics SIO

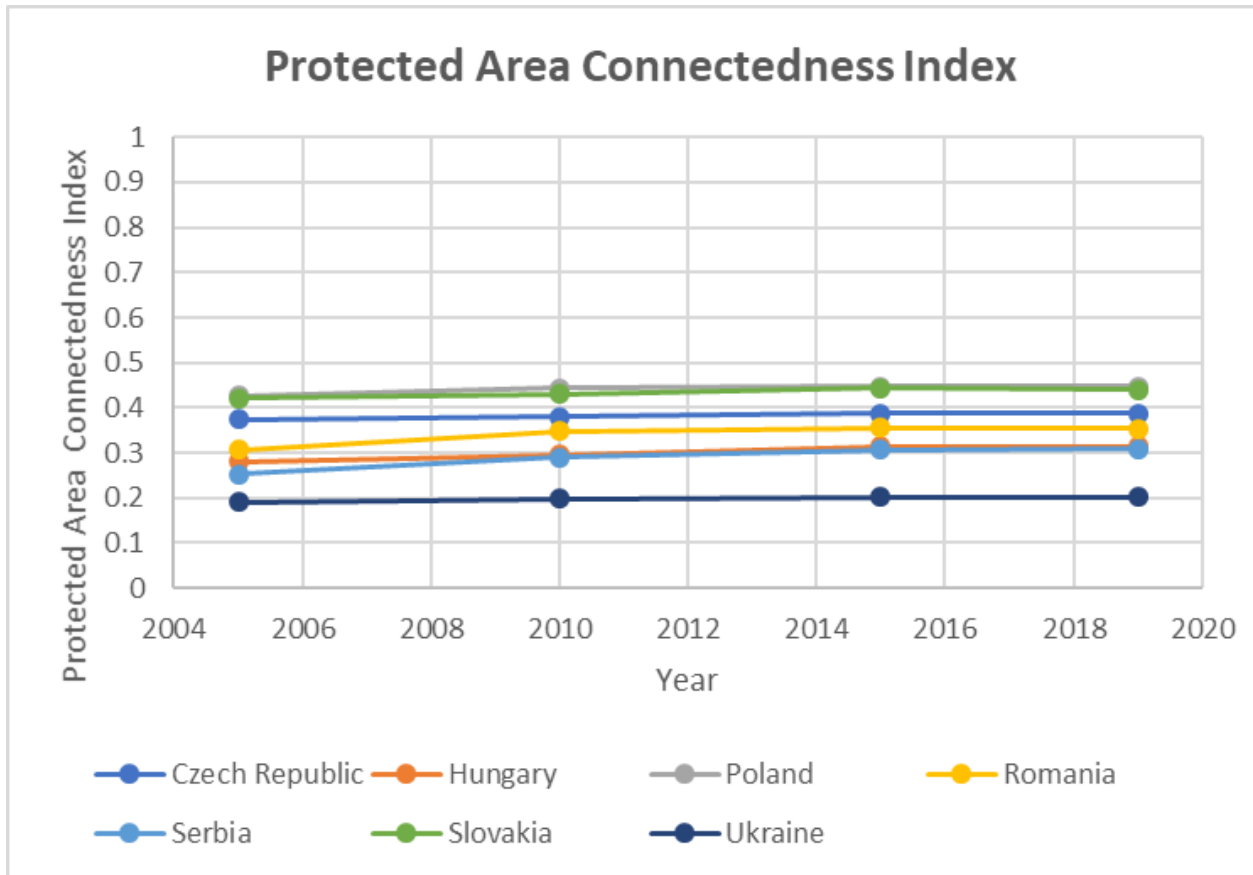


Snapshot of Connectivity of Protected Areas



- Connectivity indicators are complicated
- Fairly high score in connectivity based on Protconn indicator
- Only a third of the world's ecoregions meet Aichi Target 11 on Protected Area Connectivity according to this indicator

Protected Area Connectedness Index



- Slight upward trend, lack of momentum in improving connectivity
- Index shows changes in connectivity among terrestrial protected areas and areas containing primary vegetation (habitat) in the surrounding non-protected landscape.

Snapshot of Protected Area Management Effectiveness (PAME) Assessments

Country	Total Land Area with Protected Areas (%)	Total Land Area with PAME Assessed Pas (%)	PA Land Area with PAME Assessment (%)
Czech Republic	37.586073	22.25773337	59.21803365
Hungary	22.598828	0.817482914	3.617368692
Poland	39.737244	15.51831778	39.05232558
Serbia	7.5551639	4.603582532	60.93292752
Slovakia	37.586073	22.25773337	59.21803365
Romania	24.520642	4.950947295	20.19093668
Ukraine	3.983608	1.183081248	29.69873655

“If PAs are not conserved and managed effectively, and connectivity is constrained even within protected lands, the full connectivity potential of the PA system will not be fulfilled.” Saura et al. 2018

- Many PAs in CCIBIS database **do not** have recorded Protected Area Management Effectiveness (PAME) assessments
- Required to fully understand the effectiveness of management of conserved areas

Post-2020 Global Biodiversity Framework



Draft 2030 Target: Reducing threats to biodiversity
2: Protect sites of particular importance for biodiversity through protected areas and other effective area-based conservation measures, by 2030 **covering at least [60%] of such sites** and **at least [30%] of land** and sea areas with at least [10%] under strict protection.

These are more ambitious quantitative targets for sites of particular importance for biodiversity than Aichi Target 11

Post-2020 Global Biodiversity Framework

Suggested elements of the targets for monitoring	Suggested Indicators
<ul style="list-style-type: none"> Change in extent of protected areas and other area-based conservation measures 	<ul style="list-style-type: none"> Protected area coverage OECM Coverage
<ul style="list-style-type: none"> Change in extent of protected areas and other area-based conservation measures 	<ul style="list-style-type: none"> Protected Area Coverage of Key Biodiversity Areas Protected area coverage of ecoregions Protected Area Representativeness Index Species Protection Index
<ul style="list-style-type: none"> Connectivity of protected areas 	<ul style="list-style-type: none"> Protected Area Connectedness Index
<ul style="list-style-type: none"> Protected area management 	<ul style="list-style-type: none"> Protected Areas Management Effectiveness Governance of protected areas and OECMs (public, private, community, IPLC)

• Suggested Post-2020 specific indicators nearly identical to those for **Aichi Target 11**



Post-2020 Global Biodiversity Framework

- At present, no equivalent goal to Aichi Target 14 in Post-2020 zero draft
 - **No longer included:**
 - Mountain Green Cover Index
 - Coverage by protected areas of important sites for **mountain** biodiversity
 - Implications for SDG 15
 - Potential lack of cohesion between SDG and CBD monitoring and reporting
- Convention on Migratory Species (CMS) is calling for greater consideration of ecological connectivity in form of standalone target and greater integration
- Management effectiveness:
 - Protected Areas Management Effectiveness (PAME) remains indicator
 - Additional suggested indicator of governance of protected areas and OECMs

Summary

- Fairly high level of connectivity of PAs in Carpathian mountains
 - Still room for improvement and indicator is complicated
- Nearly all virgin/quasi-virgin forests located within PAs in Carpathian ecoregion
 - However, **management effectiveness remains difficult to assess**; PAME assessments are not widespread and findings not streamlined
- Suggested Post-2020 indicators **nearly identical** to those for Aichi Target 11:
 - Means **continuity** and importance of making indicator data more readily available at **regional and disaggregated scales to track progress**
- Omission of mountain specific indicators in Post-2020 zero draft
 - Potential lack of cohesion in monitoring and reporting

Recommendations and Path Forward

- Support call for greater focus on connectivity
- Highlight the value of maintaining mountain-specific SDG indicators in Post-2020
- Improve/update management assessment and foster common use of findings
- Green Deal for Carpathians
- **Vision and next steps:** An “information system” integrating current databases (CCIBIS and Virgin Forest Inventory), relevant biodiversity indicators (eg. assessing large carnivore and forest fragmentation), PAME assessments, and also reporting under the Convention

