

#### BRIEF

# The Summary for Policymakers of the IPBES regional assessment of biodiversity and ecosystem services for Europe and Central Asia

# 1. What is IPBES?

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is an independent, intergovernmental body established in 2012, under the auspices of UNEP, FAO, UNESCO and UNDP. Its main mandate is to synthesize the state-of-the-art knowledge on biodiversity, ecosystems and their contributions to people, as well as the tools and methods to protect and sustainably use these vital natural assets.

IPBES has four working areas:

- **Assessments**: IPBES prepares global and regional reports on the state of knowledge on biodiversity and ecosystem services, as well as on specific biodiversity topics
- **Policy Tools and Methodologies**: IPBES identifies tools and methodologies to use the results of assessments in policymaking.
- **Capacity Building**: IPBES identifies capacities and competencies required to work with IPBES, and to use its products.
- **Knowledge Generation**: IPBES identifies knowledge gaps and fosters closing them; IPBES itself does not conduct research.

# 2. What are the regional assessments of IPBES?

In January 2015, the third IPBES plenary session approved the launch of four regional assessments of biodiversity and ecosystem services in terrestrial, freshwater, coastal and marine ecosystems, namely for Africa, for the Americas, for Asia Pacific, and for Europe and Central Asia<sup>1</sup>. The overall scope of the regional assessments is to assess

- the status and trends regarding biodiversity, ecosystem functions and ecosystem services and their interlinkages,
- the impact of biodiversity, ecosystem functions and ecosystem services and threats to them on good quality of life, and
- the effectiveness of responses, including the Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets, the Sustainable Development Goals, and the National Biodiversity Strategies and Action Plans developed under the Convention on Biological Diversity.

The overall objective of the regional assessments is to strengthen the science-policy interface on biodiversity and ecosystem services at the regional and subregional level (IPBES 2018a).

<sup>&</sup>lt;sup>1</sup> <u>https://www.ipbes.net/deliverables/2b-regional-assessments</u>





# 3. What is the IPBES regional assessment for Europe and Central Asia?

The IPBES regional assessment on biodiversity and ecosystem services for Europe and Central Asia<sup>2</sup> is a synthesis of the state of knowledge on biodiversity and nature's contributions to people in the region. The assessment aims to provide the foundation for a meaningful dialogue across the full range of stakeholders. The assessment elaborates on biodiversity-related sectoral policies and policy instruments, looks at production and consumption patterns as well as economic development, ecological infrastructures and ecological technologies. It explores opportunities to foster food security, economic development and equality while avoiding further degradation and conserving cultural landscapes. The Europe and Central Asia assessment will focus in particular on the following questions:

The assessment also addresses the following specific questions:

- How can ecosystems be protected through investments, regulations and management regimes for terrestrial, freshwater, coastal and marine systems?
- What are the effects of production, consumption and economic development on biodiversity and ecosystem services and their contribution to human wellbeing, also with regards to other regions in the world?
- How can sectoral policies and new policy instruments make use of opportunities arising from the contribution of biodiversity and ecosystem services to human well-being?

The Europe and Central Asia regional assessment covers three subregions, covering the following countries:

Subregions	Countries and territories
Central and Western Europe	Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia and Turkey (Group of Central European countries)
	Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland and United Kingdom of Great Britain and Northern Ireland (Group of Western European countries)
Eastern Europe	Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Russian Federation and Ukraine
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan

The Europe and Central Asia regional assessment comprises of two documents: a technical report (so-called "chapters") and a Summary for Policy Makers (SPM). The IPBES Member States negotiated the SPM at the Platform's sixth plenary meeting (IPBES-6) in March 2018 in Medellin, Colombia.

<sup>&</sup>lt;sup>2</sup> <u>https://www.ipbes.net/deliverables/2b-europe-central-asia</u>



# 4. Structure and key messages of the SPM

Based on the 1092 pages technical report of the Europe and Central Asia regional assessment, its SPM summarizes the most important information from all chapters into 19 key messages, grouped into five sections:<sup>3</sup>

- A. Nature and its contributions to people's quality of life in Europe and Central Asia
- B. Trends in biodiversity and attribution to direct drivers
- C. Drivers of change in biodiversity and nature's contributions to people in Europe and Central Asia
- D. Futures for Europe and Central Asia
- E. Promising governance options for Europe and Central Asia

The following tables covers the SPM's key messages including related figures and tables, as well as correlated sections of the technical report (curly brackets).

#### A. Nature and its contributions to people's quality of life in Europe and Central Asia

A1. Nature provides valuable material (e.g., food), regulating (e.g., climate regulation and pollination) and non-material contributions to people (e.g., learning and inspiration). These contributions are essential for people's quality of life as they have substantial economic, social and cultural values (*well established*). {2.2.2.4, 2.2.3, 2.3.2, 2.3.3, 2.3.5}

Figure SPM.2: Nature's contributions to people and their relation to quality of life in terms of instrumental and relational values

A2. There are negative trends for the majority of nature's regulating, and some non-material, contributions to people in the Europe and Central Asia region between 1960 and 2016 (well established). This has resulted partly from intensive agriculture and forestry practices used to increase the production of food and biomass-based fuels, which have had a negative impact on many regulating services, such as soil formation, pollination and the regulation of freshwater quality (*well established*) {2.2.1, 2.2.2, 2.2.3, 2.2.5}. This continuing decline in regulating contributions can have detrimental consequences for quality of life (*established but incomplete*). {2.2.1.2, 2.2.1.5, 2.2.1.6, 2.2.1.7, 2.2.1.8, 2.2.2.1, 2.2.3.1, 2.3.1.1}

Figure SPM.3: Trends in nature's contributions to people (1960–2016) for Europe and Central Asia and the subregions

A3. Nature's contributions to people, and their influence on quality of life, are not always equally experienced across different locations and social groups in Europe and Central Asia (established but incomplete). {2.2.3.2, 2.2.3.4, 2.3.1.1, 2.3.1.3, 2.3.4, 2.3.4.2}

<sup>&</sup>lt;sup>3</sup> <u>https://www.ipbes.net/system/tdf/downloads/ipbes-6-15-add.4-advance\_eca.pdf?file=1&type=node&id=23007</u>



A4. The population of Europe and Central Asia uses more renewable natural resources than are produced within the region (*well established*). The region depends on net imports of both renewable natural resources and material contributions of nature to people (*well established*). Some of these imports to Europe and Central Asia negatively affect biodiversity, nature's contributions to people and food security in other parts of the world (*established but incomplete*). {2.2.4, 2.2.4.1, 2.3.4}

Figure SPM.4: Difference between "biocapacity" (on average 2.9 global hectares per person in the region) and the ecological footprint of consumption (4.6 global hectares per person; average deficit 1.7 global hectares per person)

A5. Biodiversity loss impairs ecosystem functioning and, hence, nature's contributions to people (*well established*) The sustained delivery of these contributions requires the maintenance of different levels of biodiversity, i.e., genetic diversity, species diversity, and the diversity of ecosystems and of landscapes and seascapes (*well established*). At each of these levels, the sustained delivery of multiple contributions generally **requires higher diversity** than the delivery of single contributions (*well established*). {3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5}

# B. Trends in biodiversity and attribution to direct drivers

B1. Of the assessed marine habitats and species, a high percentage are threatened (*established but incomplete*), varying between marine areas (*well established*). The abundance, range and habitat size of many marine species is shrinking under human pressures, including overfishing, climate change, pollution and invasive alien species (*well established*). Present positive trends, mainly due to improved fishing practices, the establishment of marine protected areas and a reduction in eutrophication, include increases in some fish stocks in the North Sea and in plankton diversity in the Black Sea (*well established*). However, monitoring data are generally missing for most marine habitats and species (*well established*). {3.3.4, 3.3.4.1–7, 3.4.2–4, 3.4.6.1}

Figure SPM.6: Assessment of past (~1950–2000) and current (~2001–2017) trends in biodiversity status of marine, inland surface water and terrestrial ecosystems for the four subregions and the whole of Europe and Central Asia

B2. Freshwater species and inland surface water habitats are particularly threatened in Europe and Central Asia (*well established*). A total of 53 per cent of the European Union's rivers and lakes achieved good ecological status in 2015 as defined by the European Union Water Framework Directive. Similarly 30 per cent of water samples in the Russian Federation were above water quality standards (*well established*). A total of 73 per cent of the assessments of the European Union's freshwater habitat types show an unfavourable conservation status (*well established*). Across Europe and Central Asia, lakes, ponds and streams are altered and disappearing as a consequence of agricultural intensification, irrigation and urban development combined with climate change (*well established*). Notable is the case of the Aral Sea, once the fourth largest lake in the world, which has now almost disappeared owing to water abstraction for crop cultivation. The extent of wetlands in Western and Central Europe and the western parts of Eastern Europe has declined by 51 per cent from 1970, while 71 per cent of





fish and 60 per cent of amphibians with known population trends have been declining over the last decade.  $\{3.3.2.2, 3.3.3.1, 3.3.3.4, 3.3.3.1, 3.4.5, 3.4.6.2, 3.4.8\}$ 

B3. Terrestrial species and habitats have long-term declining trends in population size, range, habitat intactness and functioning. This decline is mainly due to land-use change, for example unsustainable agriculture and forest management, infrastructure, urban development or mining, causing habitat loss, modification and fragmentation, and due to climate change (*well established*). The conservation status of some habitats and species that benefit from targeted conservation actions (e.g., large felids or some species listed in the European Union Birds Directive) has improved in recent years (*established but incomplete*). {3.3.2, 3.3.2.5, 3.3.2.9, 3.4, 3.4.3, 3.4.13}

- ➢ Figure SPM.5:
  - Upper graph: Extinction risk of species in Europe and Central Asia according to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species in 2015
  - Lower graph: Trend in Red List Indices of species survival weighted by the fraction of the distribution of each species within the region
- Figure SPM.6: Assessment of past (~1950–2000) and current (~2001–2017) trends in biodiversity status of marine, inland surface water and terrestrial ecosystems for the four subregions and the whole of Europe and Central Asia

## C. Trends in biodiversity and attribution to direct drivers

C1. Land-use change, as one of the major direct drivers of change in biodiversity and nature's contributions to people in Europe and Central Asia, is often posing substantial risks for human well-being (*well established*). There are examples of sustainable agricultural and forestry practices that are beneficial to biodiversity and nature's contributions to people in the region. However, the major trend is increasing intensity of conventional agriculture and forestry that lead to biodiversity decline (*well established*). Ceasing traditional land use reduces semi-natural habitats of high conservation value (*well established*) and associated indigenous and local knowledge and practices (*well established*). Protected areas have expanded, but this alone cannot prevent biodiversity loss (*well established*). {3.3, 4.2.1, 4.5.1, 4.5.1.1, 4.5.2, 4.5.3, 4.5.4, 4.5.4.2, 4.5.5}

- Table SPM.2: Impact of indirect drivers (rows) on direct drivers (columns) of biodiversity loss and nature's contributions to people in Europe and Central Asia
- Figure SPM.7: Trends in the proportion of key biodiversity areas completely covered by protected areas in Europe and Central Asia. There are two types of key biodiversity areas, Important Bird and Biodiversity Areas (IBAs) and Alliance for Zero Extinctions sites (AZEs).
- Figure SPM.8: Trends in direct drivers of biodiversity and nature's contributions to people in the last 20 years

C2. The impact of climate change on biodiversity and nature's contributions to people is increasing rapidly and is likely to be among the most important drivers in the future, in



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particular in combination with other drivers (*established but incomplete*). {4.7.1, 4.7.1.1-3, 4.7.2, 4.7.2.1, 4.7.2.4-5, 4.7.3, 4.9.2}

- Figure SPM.8: Trends in direct drivers of biodiversity and nature's contributions to people in the last 20 years
- Table SPM.2: Impact of indirect drivers (rows) on direct drivers (columns) of biodiversity loss and nature's contributions to people in Europe and Central Asia

C3. Natural resource extraction, pollution and invasive alien species continue to reduce biodiversity and nature's contributions to people, and they increase with gross domestic product and global trade. Recent policy intervention has reversed some negative impacts of these direct drivers. {4.2.5, 4.3.1, 4.4.1, 4.4.4, 4.4.4.2, 4.5.1, 4.4.6.1-3, 4.6.1-2, 4.8.1-2, 4.8.2.1, 4.9.1}

C4. Economic growth is generally not decoupled from environmental degradation. This decoupling would require a transformation in policies and tax reforms across the region (established but incomplete). {4.3.1, 4.3.2, 4.3.4}

Table SPM.2: Impact of indirect drivers (rows) on direct drivers (columns) of biodiversity loss and nature's contributions to people in Europe and Central Asia

# D. Futures for Europe and Central Asia

D1. Scenario studies for Europe and Central Asia, with time horizons up to 2100, show tradeoffs between different ecosystem services with implications for biodiversity. Political and societal value judgements embedded within scenarios will determine how these trade-offs are resolved. Scenarios that assume proactive, environmental decision-making; promote environmental management approaches that support multifunctionality; and mainstream environmental issues across sectors, can mitigate undesirable trade-offs (*established but incomplete*). Moreover, scenarios that assume cooperation between countries or regions are more effective in mitigating negative impacts across geographic scales (*established but incomplete*). Such scenarios project more positive impacts across a broad range of indicators of biodiversity, nature's contributions to people and good quality of life than others (*established but incomplete*). {2.2.6, 3.5, 5.1.1, 5.2.3, 5.3.3-4, 5.6.1}

- Box SPM.3: Scenario archetypes
- Figure SPM.9: Projected future impacts on biodiversity, nature's contributions to people and good quality of life according to six scenario archetypes for Europe and Central Asia up to 2100 (see Box SPM.3 for details of the scenario archetypes)
- Figure SPM.10: Trends in impacts on biodiversity, nature's contributions to people and good quality of life indicators that are consistent across most scenario archetypes (see Box SPM.3 for details of the scenario archetypes)

D2. Future impacts on biodiversity and nature's contributions to people are underestimated because most scenarios consider only a few drivers, notably climate change (*well established*). Single-driver scenarios also fail to capture driver interactions (*well established*). Single-driver and single-sector approaches are likely to misrepresent the direction, magnitude or spatial pattern





of impacts on biodiversity and nature's contributions to people, **leading to poor management or policy decisions** (*established but incomplete*). {5.2.1-2, 5.3.1-2, 5.3.4}

D3. Pathways propose coherent sets of actions towards the sustainable futures envisioned for the region (*established but incomplete*). The most effective pathways stress long term societal transformation (behavioural change) through education, knowledge sharing and participatory decision-making. These pathways emphasize nature's regulating contributions to people and the importance of considering diverse values (*established but incomplete*). {5.1.2, 5.4.3, 5.5.2-4, 5.6.1}

## E. Promising governance options for Europe and Central Asia

E1. Mainstreaming the conservation and sustainable use of biodiversity and the sustained provision of nature's contributions to people into policies, plans, programmes, strategies and practices of public and private actors could be achieved with more proactive, focused and goal-oriented environmental action, including quantitative goals (*well established*). {6.1, 6.15, 6.3-6, 6.4.1-2, 6.5, 6.5.1.3, 6.6, 6.6.1}

Table SPM.4: Policy options and opportunities for mainstreaming the conservation and sustainable use of biodiversity and the sustained provision of nature's contributions to people in Europe and Central Asia

E2. Developing integrated approaches across sectors would enable more systematic consideration of biodiversity and nature's contributions to people by public and private decision makers (*well established*). This includes further options to measure national welfare beyond current economic indicators, taking account of the diverse values of nature. Ecological fiscal reforms would provide an integrated set of incentives to support the shift to sustainable development (*established but incomplete*). {4.2.2, 4.3–4.8, 6.1-2, 6.4-6, 6.4.1-2, 6.5.1–6.5.5, 6.5.1.2, 6.5.2.3, 6.6., 6.6.1-2, 6.6.3.1, 6.6.4.1-2, 6.6.5.5}

E3. Effective governance of biodiversity and nature's contributions to people would benefit from well-designed mixes of policy instruments, suited to the context (*well established*). Legal and regulatory instruments are the backbone of policy mixes, and economic, financial, social and information-based instruments provide additional incentives for Governments, businesses, non-governmental organizations and citizens. Further efforts would help to develop better rights-based approaches. A key factor constraining the effectiveness of existing policy mixes is limited enforcement owing, for example, to a lack of human resources, institutional capacity and financial means, or corruption (*well established*). {2.2.1.7, 4.5.3-4, 5.5.3, 6.2-6; 6.3.1, 6.3.2.3, 6.3.2.5-6, 6.4.1-2, 6.4-6, 6.5.1-5, 6.5.1.2, 6.6.2-3, 6.6.3.2, 6.6.4.2, 6.6.5, 6.6.5.2-4}

Table SPM.4: Policy options and opportunities for mainstreaming the conservation and sustainable use of biodiversity and the sustained provision of nature's contributions to people in Europe and Central Asia

E4. A wide range of actors and stakeholders is increasingly integrated into governance processes. This can have a positive effect on biodiversity and nature's contributions to people if the effectiveness, efficiency and equity implications of such integration are carefully monitored, evaluated and improved (*well established*). Lack of adequate financing is



**a major constraint** on efforts to achieve biodiversity conservation and ecosystem restoration (*well established*). {6.2, 6.2.2.2, 6.3.2-3, 6.4-6, 6.4.1-2, 6.5.1.2, 6.5.1.4-6, 6.5.4, 6.6.2, 6.6.4}

E5. Dealing with change is a matter of societal choice (see C5). The way in which we choose to organize our societies and institutions, in both public and private spheres, is key to the realization of pathways towards the sustainable future envisioned by a diverse range of actors in Europe and Central Asia (well established). {5.4.3, 5.5.1-2, 5.5.6, 5.6.2, 6.2, 6.4.2, 6.6, 6.6.6}

# 5. Further reading

- IPBES website: <u>http://www.ipbes.net/</u>
- IPBES on the ValuES website: <u>http://www.aboutvalues.net/ipbes/</u>

On behalf of:



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