

BRIEF

The Summary for Policymakers of the IPBES regional assessment of biodiversity and ecosystem services for Asia-Pacific

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 Asia¹. 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).

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





3. What is the IPBES regional assessment for Asia-Pacific?

The Asia-Pacific regional assessment² 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. Particular challenges in the region include climate change, population growth, poverty, human consumption of natural resources, land degradation, deforestation, invasive alien species, the impact of trade, rapid urbanization, coastal pollution, and poor governance of natural resources and the impact of altered fire regimes.

The assessment also covers thematic nexus specific to the region, such as

- Food, water and energy security,
- Biodiversity and livelihoods
- Waste management, and
- Cooperative management of critical ecosystems shared by more than one country.

Subregions	Countries and territories
Oceania	Australia, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Pacific island territories of Cook Islands, New Caledonia, American Samoa, Tokelau, French Polynesia, Niue, Guam, Commonwealth of the Northern Mariana Islands, Pitcairn Island and Wallis and Futuna. Oceanic and sub-Antarctic islands in the Pacific region (or Pacific and Indian Ocean regions)
South-East Asia	Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam
North-East Asia	China, Democratic People's Republic of Korea, Japan, Mongolia and Republic of Korea
South Asia	Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan and Sri Lanka
Western Asia	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates and Yemen (Arabian peninsula); Iraq, Jordan, Lebanon, State of Palestine and Syrian Arab Republic (Mashreq)

The Asia-Pacific regional assessment covers four subregions, covering the following countries:

The Asia-Pacific regional assessment (alike all of the four regional assessments) 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.

² <u>https://www.ipbes.net/deliverables/2b-asia-pacific</u>



4. Structure and key messages of the SPM

Based on the 670 pages chapters of the Asia-Pacific regional assessment, its SPM summarizes the most important information from the chapters into 24 key messages, grouped into four sections:³

- A. Importance of nature's contributions to human well-being and good quality of
- B. Varying trends of biodiversity and ecosystem services and the role of underlying drivers
- C. Implications of biodiversity decline and opportunities for sustaining nature's contributions to people
- D. Policies, institutional frameworks and governance options for achieving global goals and targets

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. Importance of nature's contributions to human well-being and good quality of life

A1. The Asia-Pacific region has a great **richness of biodiversity**, including a variety of ecosystems. The **ecosystem services** derived from these provide vital support for human well-being and sustainable development (*well established*). {1.1.3, 2.3, 2.4}

A2. **Biodiversity** and **ecosystem services have contributed to** the **rapid economic growth** in the Asia-Pacific region, although this growth, in turn, **has had varying impacts** on biodiversity and ecosystem services (*well established*). {1.1.3, 1.1.4, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 4.2.1, 4.2.2, 4.3.3

A3. The Asia-Pacific region's terrestrial, freshwater and marine ecosystems **offer various goods directly** — such as plants, fungi, and animals including fish — that individuals need in order to earn an income and secure a sustainable livelihood (*well established*). Sustaining the viability of, and access to, various provisioning services, will contribute to the alleviation of poverty {2.1.2, 2.4.4, 4.2.2.2}

A4. **People value nature** across the Asia-Pacific region **for** its important **contribution to their cultural, spiritual, psychological, physical and economic well-being** (*well established*) {2.3}. Interactions with nature are shaped by people's diverse values and value systems (*established but incomplete*) {2.2.1, 2.2.2, 2.3.1, 2.3.2}. There is significant variation in the way economic and non-monetary values are elicited for nature's contributions to people⁴ across the Asia-Pacific region and its subregions (*well established*). {2.3.3, 2.3.3.4}

Figure SPM.2 Distribution of studies on the economic valuation of ecosystem services across five subregions and eleven ecosystem types of the Asia-Pacific

³ <u>https://www.ipbes.net/sites/default/files/downloads/ipbes-6-15-add.3-advance_ap.pdf</u>

⁴ See appendix II for further information on the concept of nature's contributions to people.





B. Varying trends of biodiversity and ecosystem services and the role of underlying drivers

B1. Across the Asia-Pacific, while **biodiversity** and **ecosystem conditions are declining** overall, **they are well maintained in some areas** (*established but incomplete*). {3.2.1, 3.2.2, 3.2.3, 4.1.2.1, 4.3, 4.4.1}

- > Figure SPM.3 A scheme of forest transition under some key drivers
- ► Figure SPM.4
- a. Overall extinction risk of species in the Asia-Pacific region

b. Red List Indices of species survival in the Asia-Pacific region, weighted by the fraction of each species' distribution occurring within each region/subregion in the Asia-Pacific region

B2. The **population of large wild mammals**, especially some ungulates and carnivores, and birds **has declined** across the region (*well established*). {3.2.1.1, 3.2.1.2, 3.2.1.4, 4.1.4}

B3. There is a steady **increase** in the number and abundance **of invasive alien species**, **impacting native biodiversity, ecosystem functioning** and **productivity** (*well established*). {1.1.4, 4.1.4, 4.5.1}

B4. **Protected area coverage** in the Asia-Pacific region **has increased** substantially, but **coverage of key biodiversity areas**⁵ and important bird areas **still remain low** and progress is needed towards better overall management effectiveness (*well established*) {3.2.6.3, 6.4.2.1}

- > Figure SPM.5 Protected area coverage in the Asia-Pacific region
- ➢ Figure SPM.6
 - a. Protected area coverage in the Asia-Pacific subregions
 - b. Growth in the proportion of KBAs completely covered by protected areas in the Asia-Pacific region

B5. **Traditional agrobiodiversity is in decline**, along with its associated indigenous and local knowledge, owing to a shift **towards agricultural intensification** and **high-yielding crop varieties** (*well established*). {3.2.1.5, 3.2.5.2, 3.2.5.4, 4.1.3.2, 4.1.3.3, 4.4.5}

B6. In the Asia-Pacific region, **people are heavily dependent on fisheries for food**, with aquaculture growing by nearly 7 per cent annually. But the capture **fisheries sector faces challenges** owing to **overharvesting, invasive alien species, disease** and **pollution** (*well established*). {3.2.2, 3.2.3, 3.2.4, 4.1.2.3, 4.1.3, 4.4.7, 4.4.8, 5.2.3}

B7. Climate change, sea level rise and extreme climatic events are harming species, habitats and ecosystem structure and functions. Other global changes, including ocean warming, ocean acidification and increased frequency and severity of pest and disease outbreaks, are affecting production systems and ecosystem functions in both marine and terrestrial systems (*well established*). {2.1.5, 3.2.3, 3.3.4, 4.1.5, 4.4, 4.5, 5.2}

B8. The **increasing impact of waste** and **pollution** on terrestrial, freshwater and marine ecosystems, **is threatening** the **current** and **future health of nature** and **people** in the Asia-Pacific region *(well established)*. {2.1.7, 2.2.2.3, 2.2.4.4, 2.3.4.3, 2.4.1, 4.1.3.3, 4.3}

⁵ Defined as sites contributing significantly to the persistence of biodiversity of global importance.





C. Implications of biodiversity decline and opportunities for sustaining nature's contributions to people

C1. Both **direct** and **indirect drivers** and **interactions** among them are **causing biodiversity loss** and **habitat destruction** in the Asia-Pacific region, with indirect drivers playing an increasingly prominent role (*well established*). {4.1, 4.2, 4.3, 4.4, Figure 5.16, 5.5, 6.4.3}

Figure SPM.7 Level of influence of direct and indirect drivers on ecosystem services supply in the Asia-Pacific region

C2. Rapid economic growth, globalization, urbanization and infrastructure development are profoundly modifying consumption and production patterns, and adversely impacting biodiversity and nature's contributions to people (*well established*). {1.1.4, 2.1.5, 2.3.1.2, 2.4.3, 3.2.1, 3.3.6, 4.1.1, 4.2.1.4, 4.2.2, 4.2.3, 4.2.4, 4.3, 4.4.1, 4.4.7.1, 5.2.1, 5.2.3, 5.4.3}

C3. Unsustainable use and invasive alien species are two of the key direct drivers of **declining biodiversity**, particularly on island ecosystems (*well established*). {3.3.5, 4.1.1, 4.1.2, 4.1.4, 4.4, 5.3.3.4, 6.5, 6.6}

C4. Progress in forest management and protected area expansion and management increases the probability of meeting the Aichi Targets and the Sustainable Development **Goals** (*established but incomplete*), although not enough to reduce biodiversity loss. {3.2.1.1, 3.2.6, 3.2.6.1, 4.1.2.1, 6.2.2.1, 6.4.2, 6.5, 6.6}

 Figure SPM.8: Average wood removal in the Asia-Pacific subregions (including overseas territories)

C5. New technologies and the implementation of effective policies and good governance have the potential to promote the sustainable use of biodiversity (*established but incomplete*). {2.5.2., 2.5.3, 4.2.4., 5.3.2.1, 5.3.2, 5.3.3, 5.3.3.4, 5.5, 6.4.1.5, 6.4.2.4}

C6. Decision-making based on **harmonized scenarios and models at different temporal and spatial scales allows the mapping of plausible futures** in diverse settings of the Asia-Pacific region (*established but incomplete*). {5.2, 5.3.2, 5.3.2.2, 5.3.3.1, 5.3.3.4, 5.4.2.2, 5.4.3, 5.4, 5.5, 5.4.3}

- Figure SPM.9: Biodiversity loss in the Asia-Pacific region in terms of mean species abundance under different scenarios
- D. Policies, institutional frameworks and governance options for achieving global goals and targets

D1. **Collaborative, participatory and adaptive governance of biodiversity** demonstrates a **potential pathway for the sustainable utilization of biodiversity and ecosystem services**, although this requires significant scaling up across the Asia-Pacific region (*well established*). {1.4.4.1, 2.5.1.1, 6.2.3, 6.4.2.4, 6.4.3, 6.4.1.4, 6.4.2.4, 6.5, 6.7}

Table SPM.1: Value estimates observed in the Asia-Pacific region by ecosystem type and by nature's contribution to people (2010 international dollar per hectare per year)





D2. **Mainstreaming of biodiversity-related goals** into national, subnational and local development policies, plans and programmes is **needed to address the impacts of underlying drivers on biodiversity and ecosystems** to sustain the flow of nature's contributions to people (*well established*). {2.5.1, 2.5.2.3, 6.2.2, 6.2.3, 6.3.1, 6.3.2, 6.3.3, 6.4.1.4, 6.4.2, 6.4.3.2, 6.5, 6.7}

D3. **Governance options** for reducing biodiversity decline are **more likely to work if integrated frameworks, partnership development, cross-sectoral cooperation and the smart use of policy instruments are adopted** (*well established*). {6.2.2, 6.2.3, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.5, 6.6, 6.7}

Table SPM.2: Progress and policy options towards achieving the Aichi Biodiversity Targets in the five subregions

D4. **Regional and transboundary management** of important landscapes and seascapes is **providing new opportunities for conservation of threatened ecosystems** (*well established*). {1.4.2, 2.3.4, 2.5.1, 3.3.6, 4.6, 6.2.1, 6.4.3, 6.5, 6.6, 6.7}

D5. Innovative **partnerships with the private sector can** significantly **scale-up funding for a range of biodiversity protection and ecosystem conservation** efforts throughout the Asia-Pacific region (*well established*). {1.1.5, 1.4.1, 1.4.5, 3.2.6, 6.2.2.2, 6.2.3.1, 6.4.1, 6.4.2}

D6. Sustainable production and consumption policies bring about better quality of life, while minimizing the use of natural resources and the creation of wastes and pollution (*established but incomplete*). {5.2, 5.4.2, 6.2.2.1, 6.4.1, 6.4.2.7, 6.4.4, 6.5}

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: Federal Ministry for the Environment, Nature Conservation, Duilding and Nuclear Safery of the Federal Republic of Germany



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