



Kunming-Montreal Global Biodiversity Framework **Target 6 on invasive alien species**

Invasive Alien Species and socio-economic impacts

© Ramon F. Velasquez CC-BY-NC-SA

Invasive alien species (IAS) are one of the main drivers of biodiversity loss, and they have severe negative impacts on biodiversity, health, nature contributions to people, and economic activities among others. The Kunming-Montreal Global Biodiversity Framework has 23 action-oriented global targets for urgent action over the decade to 2030, and one of these, target 6, aims to eliminate, minimize, reduce and or mitigate the impacts of IAS on biodiversity and ecosystem services.¹

IAS have contributed to 60% of all known global extinctions,² however, their impacts also lead to significant socio-economic costs, affecting livelihoods, economies, infrastructure, public health, recreation, and cultural practices. Every year, IAS costs the global economy **over \$423 billion**. While some IAS may have benefits or lead to positive impacts, these should not be used to balance or offset the harmful or negative impacts, which may be irreversible. It is important to highlight that communities with the greatest direct dependence upon nature, such as indigenous peoples and local communities are disproportionately affected by IAS.

IAS can affect ecosystem functions and processes, degrading the services and benefits people derive from them. A single species can lead to a wide variety of impacts. For example, water hyacinth is an invasive alien aquatic plant that forms dense mats on lakes and rivers that block waterways and change water quality and flow regimes. This can negatively affect fishing, navigation, and recreation activities, damage infrastructure, increase the risk of flooding, and reduce access to clean water for drinking and irrigation.³

¹ Target 6 <https://www.cbd.int/gbf/targets/6>

² IPBES. (2023). <https://doi.org/10.5281/zenodo.7430692>

³ Abba, A., and Sankarannair, S. (2024). <https://doi.org/10.1007/s11356-024-33905-7>



Fall armyworm © Klaus Birkhofer, CC 4.0 BY-NC

IAS can also directly impact major economic sectors such as food and forestry production and thus pose a risk to food security and economies. An example is the fall armyworm (FAW), which is a moth native to South America that has been introduced and spread rapidly over the past decade across sub-Saharan Africa and parts of Asia, where it has devastated a wide variety of staple crops such as maize and sorghum, leading to severe impacts on food security and livelihoods, and to agricultural productivity and rural economies.⁴ The FAW highly diverse diet and potential expansion in invaded habitats may also put some wild flowering plants and their ecosystem services at risk.⁵

Human health can also be impacted by IAS. For example, through the production of allergenic pollens or toxic sap, or by being bitten or stung, or indirectly through ecosystem degradation, such as affecting water quality. IAS also play a role in the transmission of diseases to humans, for example, invasive mosquito species can facilitate the spread of infectious diseases such as malaria, dengue fever or yellow fever.

As native animals, plants, and other organisms and ecosystem services are lost or degraded due to IAS, associated cultural practices can be negatively impacted. For example, the loss of ash trees in North America due to the invasive emerald ash borer is threatening a centuries-old industry of basket making from black ash trees for American Indian and First Nation weavers.⁶

4 Togola, A., et al. (2025). <https://doi.org/10.3389/fagro.2025.1538198>

5 Ayra-Pardo, C., et al. (2024). <https://doi.org/10.1080/09670874.2021.1968534>

6 EAB Network <https://www.emeraldashborer.info/blog/3>

What can be done

The socio-economic impacts from IAS and their interlinkages with other sectors, such as human health and wellbeing, need to be understood and integrated alongside knowledge on their biodiversity impacts when developing and implementing policies and actions. This requires taking a whole-of-society approach to managing IAS, coordinating across multiple sectors such as agriculture, environment, trade, and human health, along with indigenous peoples and local communities, and civil society organisations.

There are tools and guidance that aim to support the incorporation of socio-economic and cultural values associated with IAS and their impacts and management, for example, Annex IV of COP16/18,⁷ and the Socio-Economic Impact Classification for Alien Taxa (SEICAT).⁸ There are also additional tools that can be used to support cross-sectoral actions on IAS, such as its links with human health as recognised in the Global Action Plan on Biodiversity and Health⁹ which aims to support Parties in mainstreaming biodiversity and health interlinkages into the implementation of the Kunming-Montreal Global Biodiversity Framework, including for Target 6 on invasive alien species.

Key sources and further reading

Convention on Biological Diversity. Decision 16/19 Annex. Global Action Plan on Biodiversity and Health. <https://www.cbd.int/doc/decisions/cop-16/cop-16-dec-19-en.pdf>

Convention on Biological Diversity. Decision 16/18. Elements of voluntary guidance Annex IV. Risk analysis of the potential consequences of the introduction of invasive alien species on socioeconomic and cultural values. <https://www.cbd.int/doc/decisions/cop-16/cop-16-dec-18-en.pdf>

IPBES. (2023). Summary for Policymakers of the Thematic Assessment Report on Invasive Alien Species and their Control of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. <https://doi.org/10.5281/zenodo.7430692>

7 Annex IV of COP Decision 16/18. <https://www.cbd.int/doc/decisions/cop-16/cop-16-dec-18-en.pdf>

8 Bacher, S., et al. (2018) <https://doi.org/10.1111/2041-210X.12844> & Probert, A., et al. (2023) <https://doi.org/10.3897/neobiota.89.109911>

9 The Global Action Plan on Biodiversity and Health <https://www.cbd.int/health/GAP.shtml>

A toolkit has been developed to support Parties in the implementation of Target 6, and it can be accessed here www.cbd.int/invasive/cbdtoolkit

Contact:
Secretariat of the Convention on Biological Diversity
secretariat@cbd.int

More information on the Kunming-Montreal Global Biodiversity Framework: <https://www.cbd.int/gbf>

This material has been produced with the generous support from the Government of Japan through the Japan Biodiversity Fund, and the European Union.



Convention on
Biological Diversity

