



# Singapore Undergraduate Policy Competition 2024

Ouroboros: Circles of Sustainable Renewal in Asia

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**Domain area:** Environmental Sustainability

**Topic:** Enhancing Our Biodiversity

**Guiding questions:**

(a) What steps can we take to protect flora and fauna in Singapore?

**OR**

(b) What regional effort(s) can countries partake in to enhance biodiversity in Asia?

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### General information

The estimated extinction rate of flora and fauna in Singapore was 37% over the last two centuries.<sup>1</sup> As of 2023, most primary forests, mangrove and swamp areas in Singapore have been cleared, with only 0.16% of Singapore's primary vegetation remaining.<sup>2</sup> This widespread removal of natural habitats has been cited as the driving force behind the extinction of native species in the tropical ecosystems of Singapore.<sup>3</sup>

Wildlife trade and hunting are other factors that threaten biodiversity in Southeast Asia (SEA).<sup>4</sup> For instance, the Sunda pangolin and the straw-headed bulbul are Southeast Asian species that are critically endangered due to poaching.<sup>5</sup> Even in Singapore where it is illegal to trade wildlife species that are protected by CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), the Animal Concerns Research and Education Society (Acres) has found that the number of banned wild animals for sale on messaging and social media platforms have doubled from 333 in 2021 to 660 in 2023.<sup>6</sup>

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<sup>1</sup> Ryan A. Chisholm et al., "Two centuries of biodiversity discovery and loss in Singapore," PNAS 120, no. 51 (2023): 2, <https://doi.org/10.1073/pnas.2309034120>.

<sup>2</sup> Chisholm et al., "Two centuries," 1; Khew, J.Y.T. et al., "Public Perceptions of Nature and Landscape Preference in Singapore," Human Ecology 42 (2014): 979, <https://doi.org/10.1007/s10745-014-9709-x>.

<sup>3</sup> Navjot S. Sodhi et al., "Southeast Asian biodiversity: an impending disaster," Trends in Ecology and Evolution 19, no. 12 (2004): 654, <https://doi.org/10.1016/j.tree.2004.09.006>.

<sup>4</sup> Sodhi et al., "Southeast Asian biodiversity," 656.

<sup>5</sup> Chisholm et al., "Two centuries," 5.

<sup>6</sup> Ang Qing, "Illegal wildlife trade detected on Telegram doubled from 2021 to 2023: Acres," Straits Times, December 31, 2023, <https://www.straitstimes.com/singapore/environment/illegal-wildlife-trade-detected-on-telegram-doubled-from-2021-to-2023-acres>.





Additionally, although SEA harbours 20% of the world's flora and fauna, only around 6% of its land and territorial waters are currently protected for conservation. This is far short of the 30% global conservation target set at the 15th Conference of Parties to the UN Convention on Biological Diversity (COP15). A probable reason could be the economic trade-offs that conserving wildlife entails. For example, fishing operations, shipping lanes and oil exploration may no longer be permitted in areas demarcated for wildlife conservation, affecting countries' Gross Domestic Product (GDP) and export figures.

Despite these negative economic impacts, some countries in SEA have set aside areas for wildlife conservation. For instance, Malaysia has created a 10,000 sq. km marine protected area and Cambodia conserves 30% of its land.<sup>7</sup> In Singapore, despite the public's preference for manicured landscapes over natural ones, more efforts have been made to regard spaces in the city as sites for biodiversity conservation.<sup>8</sup> Domestic and regional policies are essential for continuing to combat wildlife trade and for conserving land and marine areas to protect the biodiversity and ecosystems within them. Good policymaking, its proper implementation, regional partnerships, compliance, and enforcement are essential in this pursuit.

### Scope of Policy Proposal

Consider the following points and address these in your policy proposal. If you intend to take on a specific perspective (e.g., a certain Ministry, organisation), do state it clearly in your proposal.

- (1) **Economic feasibility:** Your policy should aim to protect and enhance biodiversity in a fiscally prudent manner. If you anticipate additional public spending, state that clearly and explain how the positive impact(s) of your policy justify the spending.
- (2) **Measurable impact:** Set out ways of measurement to evaluate the effectiveness of your policy in the future. You may use existing frameworks or propose your own framework for measuring policy success. Explain your measurement framework, including progress yardsticks etc.

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<sup>7</sup> Eco-Business, "Biodiversity protection challenge."

<sup>8</sup> Khew et al., "Public Perceptions," 983.





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- (3) **Stakeholders:** Identify the key stakeholders of your policy. Explain why stakeholder support and compliance is important to your policy. Flag out conflicting interests between stakeholders. Your policy should be a reasoned compromise between the conflicting interests.

### **Points of interest**

- Flag out conflicting interests between stakeholders. Your policy should be a reasoned compromise between the conflicting interests.
- Explore how international relations within and outside Asia might shape regional cooperation in terms of combating endangered wildlife trade, and/or land and marine conservation.
- Identify whether there is a need to prioritise conservation of certain types of flora and fauna over others and provide justifications.





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## Bibliography

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