



Democratic Socialist Republic of Sri Lanka

National Policy on Biodiversity of Sri Lanka

**Ministry of Environment
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1. Policy Name

National Policy on Biodiversity of Sri Lanka

2. Effective Date

2024

3. Introduction

3.1. Background

Historical and geological isolation from the continental landmass, its intricate topographic heterogeneity, and its diverse climates have collectively formed a unique biogeography and rich biodiversity within the island nation of Sri Lanka.

Sri Lanka exhibits an exceptionally high degree of endemism with many genera exclusive to Sri Lanka (MoMD&E, 2019), which is particularly noteworthy given its proximity to the neighbouring mainland. This high degree of endemism is due to Sri Lanka's biogeographic history, which involves periods of connection to the mainland Indian Subcontinent allowing for biotic immigration, together with periods of intermittent isolation that facilitated speciation (Perera & Fernando, 2024).

The biogeography of Sri Lanka can be traced back to the ancient supercontinent, Gondwanaland. The island was located on the Indian Plate which gradually detached from Gondwanaland approximately 132 – 120 million years ago, during the Cretaceous period. The Indian Plate drifted northwards over a duration of approximately 50 million years before colliding with the Eurasian Plate. Sri Lanka's definitive separation from the mainland Indian Subcontinent occurred approximately 20 million years ago, during the Miocene Epoch. The Plio-Pleistocene epoch (lasting approximately 5 million years ago to 12 thousand years ago) was characterised by a series of sea-level fluctuations, which led to intermittent connections with the mainland, which facilitated further faunal and floral exchange, until final disconnection occurred just before the Holocene Epoch (Perera & Fernando, 2024). In contrast to the rest of the island, the rainforests of Sri Lanka's southwestern quadrant have remained biogeographically isolated, for a span of nearly 20 million years, from their counterparts in the Western Ghats mountain range that straddles the western coast of the mainland Indian Subcontinent. This extended isolation has driven a significant degree of neo-endemism.

As a relatively small island nestled within the Indo-Malayan Biogeographic realm, Sri Lanka does not exhibit the expansive species richness characteristic of continental landmasses or larger South-East Asian islands such as Sumatra or Borneo (MacArthur and Wilson, 2001). However, the island displays a high degree of endemism, particularly evident in its southwestern rainforests and the central highlands, due the longer periods of isolation of those regions from their subcontinental counterparts, allowing for a higher degree of evolutionary processes and speciation to occur over many millennia. Within these areas, the highest degree of endemism is within the Lowland Rain Forests and Montane Rain Forests ecoregions, which host distinctive biodiversity that have been recognised through various evaluative measures (CI, 2018).

This distinctive biodiversity was recognised despite limited taxonomic and ecological studies being conducted within Sri Lanka. To date, studies that have been carried out have been mostly limited to terrestrial or charismatic species. Data on the species richness, including the number of endemic, indigenous and exotic species within some notable groups, that currently inhabit Sri Lanka, are available for flowering plants (3,087 species of which 863 are endemic) (National Red list 2020), mammals including marine (140 species of which 19 are endemic), birds (510 species of which are 33 endemic), reptiles including marine (220 species of which 135 are endemic), amphibians (119 species of which 106 are endemic), fish including fresh, brackish and marine (1,514 species in total and out of freshwater fish specifically, 61 are endemic), land snails (253 of which 205 are endemic), butterflies (248 species of which 31 are endemic), dragonfly and damselflies (130 species of which 78 are endemic), scorpions (19 species of which 14 are endemic), spiders (563 species of which 275 are endemic), termites (72 species of which 18 are endemic), ants (229 species of which 33 are endemic), thrips (103 species), bees (159 species of which 22 are endemic), millipedes (103 species of which 82 endemic) and crabs including freshwater, brackish and marine (420 species in total and out of freshwater crabs specifically, 50 are endemic) (MoMD&E, 2019). The above diversity is complemented by a remarkable diversity of sub-species seen in some taxa. For instance, 5 species and 12 subspecies of lorises and monkeys are found within the country.

The relentless encroachment of anthropogenic activities has placed the invaluable biodiversity of Sri Lanka under threat. Seven have been prioritised in the “Biodiversity Profile of Sri Lanka” prepared as a part of 6th National Report to Convention on Biological Diversity (MoMD&E, 2019). These threats are river

diversion, habitat fragmentation, loss of physico-chemical characteristics of ecosystems, pollution from both organic and inorganic waste, over exploitation, spread of invasive species and climate change. These threats are symptomatic of the effects of anthropogenic land use patterns which, originated during the ancient kingdoms that flourished in both the dry and wet zones of the country, intensified during the colonial era and which persists unabated to the present day. Cumulative anthropogenic modifications of the terrestrial, marine and inland aquatic ecosystems of Sri Lanka have resulted in the significant losses of both the quantity and quality of natural habitats, pushing Sri Lanka's distinctive biodiversity is on the brink of irreparable harm. Consequently, many species are under threat of extinction. In the last few national red-lists published in 2020 and 2012, assessment of groups revealed that, 48.4% of assessed flowering plants, both species of gymnosperms within Sri Lanka and 59.1% of Pteridophytes found in Sri Lanka were listed within a threatened category (MoE and DNBG, 2020). A similar pattern is seen within assessed faunal groups of Sri Lanka where, 55.8% of mammals (MoE, 2012), 33.2% of birds (MoE, 2021), 50.7% of reptiles (MoE, 2012), 65.8% of Amphibians (MoE, 2012), 62.9% of freshwater fish (IUCN/MoE, 2020), 70.8% of land snails (MoE, 2012), 40.4% of butterflies (MoE, 2012), 51.7% of dragonflies, (MoE, 2012), 81.5% of bees, (MoE, 2012) and 90.2% of freshwater crabs (MoE, 2012), were listed in a threatened category. These assessments are sobering and underscores the critical status of Sri Lanka's biodiversity, especially as Sri Lanka is listed amongst the 36 Global Biodiversity Hotspots. Recognising the urgency, Sri Lanka is reforming its focus, future actions and strategies, in regards to conservation. There is an urgent need for the implementation of swift and substantial conservation efforts backed by robust policies. The window of opportunity for the implementation of such actions may already be overdue. Sri Lanka wishes to safeguard its exceptional biodiversity for future generations and ensure the availability of natural capital for future generations, through dedicated commitments to preserving and rehabilitating its natural ecosystems and ensuring sustainable use. These safeguards, initiatives and commitments serve to ensure the prosperity of the population and Sri Lanka's global status as a land mass with unique biodiversity.

3.2. Need

Sri Lanka's biodiversity offers a wealth of potential economic, social, and cultural benefits, serving as a primary source of natural capital, which underpins all economic activity and contributes to human well-being. Sri Lanka's biodiversity and other ecosystem related services are among the countries' most vital asset, underpinning its

prosperity by providing opportunities to make the country nutritionally secure, water secure, medically secure, energy secure, financially secure, socially secure and crucially, culturally and spiritually secure. The conservation of biological diversity is essential to maintain several ecosystem services such as stable natural hydrological cycles, fertile soils, a balanced climate, among others, upon which industries such as agriculture, forestry and fisheries rely. Food production in particular is intricately linked to biodiversity, which is vital to maintain diverse cultivation, pollination, pest control, nutrient provision, genetic diversity, and disease prevention and control. Beyond agriculture, the medicinal and pharmaceutical industries, both in terms of traditional medicinal plants and modern manufactured drugs, relies extensively on Sri Lanka's rich biodiversity. Similarly, tourism hinges on the preservation of healthy ecosystems and species richness.

The connection between biodiversity and social well-being in Sri Lanka is profound and multi-faceted. Traditional knowledge and wisdom held by local communities regarding the use of various plants for sustenance, medicine, and cultural practices is intricately tied to biodiversity. Safeguarding and revitalising traditional knowledge and cultural practices is important for local community empowerment and the preservation of cultural heritage. Moreover, intact ecosystems offer vital services such as clean water, opportunities for hydropower generation, air purification, soil formation and disease regulation. These ecosystem services play a key role in the concept of "One Health", which is a framework that recognises the interconnectedness and interdependencies between human and ecosystem health. One Health benefits the health and quality of life of the entire population.

Sri Lanka's biodiversity is interwoven into the fabric of cultural heritage and national identity. Diverse ecosystems within the island have inspired art, literature, rituals, and traditional practices for generations. Cultural norms and values have been highly influenced by indigenous and local knowledge regarding the interrelationships between species and their habitats. Integrating this indigenous wisdom into conservation efforts will foster a holistic approach towards conservation that recognises the intrinsic value of biodiversity beyond its economic importance.

The Government of Sri Lanka and its citizens are bound by Article 27, Subsection 14 of the Constitution, which states that "The state shall protect, preserve and improve the environment for the benefit of the community". In adherence to this provision, the government has established a range of policies focussed on the environment and natural capital. Based on policy directives, actions have been taken to introduce

necessary legal frameworks, reforms, institutions, collaborations and actions to ensure the conservation and sustainable utilisation of the country's natural capital. Some specific aspects relating to biodiversity and its conservation are covered by already existing policies such as the National Environmental Policy, National Wildlife Policy, National Forest Policy, National Policy and Strategies on Traditional Knowledge and Practices Related to Biodiversity and the National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing. However, a comprehensive policy framework that encompasses all relevant facets of biodiversity is non-existent. This prevents a holistic and strategic approach being utilised towards conservation and the sustainable/wise use of Sri Lanka's biodiversity resources. Existing key strategic frameworks covering biodiversity, such as the National Biodiversity Strategic Action Plan have been prepared without a unifying vision and mission that encompasses all facets of biodiversity.

3.3. *Purpose & Context*

The primary purpose of the proposed National Policy on Biodiversity of Sri Lanka is to ensure that Sri Lanka recognises, audits and treats biodiversity as a critical component of the nation's natural capital. This proposed policy will lay the groundwork for Sri Lanka to fulfil relevant national and international commitments allowing Sri Lanka to position itself to implement strategies and address challenges relating to conservation and sustainable utilisation of its biodiversity resources. Biodiversity is a cornerstone of development, and its loss will threaten current and future development plans. Within Sri Lanka, an all-encompassing National Policy on Biodiversity will strengthen legal instruments, enhance institutional structure and promote greater cohesion. This policy will facilitate the development of both voluntary and involuntary markets, relating to biodiversity resources. This proposed policy will facilitate capacity building by disseminating and developing required knowledge, skills, will and the unity for grasping the fundamental importance of biodiversity conservation in delivering national objectives and fulfilling Sri Lanka's commitments as a signatory to the Convention of Biological Diversity. On the international stage, this comprehensive policy will increase Sri Lanka's capacity to engage effectively with regional and international dialogues, initiatives and decisions, by improving the country's ability to capitalise on the many opportunities arising from such forums and initiatives.

3.4. *Rationale*

The following points were highlighted, either in the latest assessments conducted for red listing of species or in the results that emerged from the compilation of the Biodiversity Profile of Sri Lanka (MoMD&E 2019) as a part of the country's national reporting to the Convention on Biological Diversity:

1. Multiple drivers continue to contribute to the degradation of biodiversity and ecosystems that harbour biodiversity within terrestrial, aquatic, coastal and marine environments.
2. Biodiversity is undervalued and currently isn't fully recognised as a national asset that has the potential to uplift the economic and social status of all communities.
3. Strategic tools that comprehensively captures and addresses threats and issues facing biodiversity, while allowing the nation to sustainable capitalise on and prosper from its biodiversity resources are yet to be devised, as required by national, regional and international commitments.

There is a lack of cohesively formed goals and pathways that are required to ensure the conservation of Sri Lanka's existing biodiversity, the scientific reintroduction of lost biodiversity and to ensure that direct and indirect benefits and services from biodiversity are sustainably maintained for present and for the future generations. Similarly, aspects such as safeguards on bioprospecting, traditional knowledge, uses and users, together with provisions for fair and equitable benefit sharing arising from biodiversity are yet to be institutionalised. There is a lack of policy directives that ensure actions such as the development of pathways to encourage willing and active contribution from the nation to ensure protection and wise use of biodiversity; introduction of a mechanism for making information , that is constantly updated by dedicated data collectors and private citizens, regarding all facets of biodiversity available for decision making and; the establishment of legal and institutional frameworks, together with voluntary commitments to biodiversity that guides and allows for the negotiating of all aspects of biodiversity transactions and decisions taken within the country and outside the country. Hence, the need for a National Policy on Biodiversity of Sri Lanka has been highlighted by all parties to protect biodiversity, ecosystem services, investments and to ensure the nation's readiness for sustainable and wise use.

4. Vision

A secured Sri Lanka with healthy and functional ecosystems and thriving biodiversity, maintained throughout its range with evolutionary potential, for national and global benefits

5. Mission

In order to achieve the above vision, this policy will provide the framework for Sri Lanka to undertake the mission resulting in;

A sustainable development framework that integrates biodiversity and equitable benefit sharing; empowered and knowledgeable Sri Lankan's contributing towards valuation, conservation and restoration of biodiversity of Sri Lanka, through actions that support thriving ecosystems and functions.

6. Policy Principles

This policy will enable conservation, sustainable utilisation and equitable benefit sharing of the nation's biological diversity, through the following outcomes and achievements:

1. Principle of Biodiversity Essentiality:

Recognized the principle of biodiversity essentialness which states that biodiversity is vital for supporting life, ecological balance, sensory heritage and cultural identity thus committing to mobilise resources and partnerships.

2. Principle of Value:

Recognized the intrinsic value of biodiversity and its importance for sustaining life, leading to enhanced human well-being of all genders, greater economic prosperity and biodiversity driven economic reforms.

3. Principle of Ecosystem Support:

Health and prosperity of ecosystems fostered to ensure their ability to provide essential services for both biodiversity and humanity.

4. Principle of Conservation:

Preserved, protected and efficiently managed biodiversity including paleo-biodiversity, which safeguarded Sri Lanka's natural heritage and promoted ecosystem integrity and stability.

5. Principle of Delivering Shared Benefits and Wise-Use:

Sustainable practices that harmonised human activities with biodiversity conservation were employed. These practices ensured responsible use of biodiversity related resources and delivered equitable benefits for all.

6. Principle of Knowledge and Skill Generation and Communication:

An enhanced understanding of Sri Lanka's unique flora and fauna within land, aquatic, coastal and marine ecosystems, along with their interactions and functions, achieved through timely and effective communication, data sharing and access, resulting in a well-informed populace.

7. Principle of Appreciating Traditional Knowledge and Skills:

Revered and protected ancient wisdom and skills about and derived from biodiversity, through safeguarding relevant practitioners and practices and the provision of resources, time and space needed for their continuity.

8. Principle of Sustainable Development and Integrated Biodiversity Management:

Biodiversity considerations successfully integrated into national development plans, fostering long-term sustainability and resilience, creating holistic strategies that addresses biodiversity conservation across various sectors by combining evidence-based decision making with precautionary approaches.

9. Principle of Restoration:

Degraded ecosystems, restored and rehabilitated to their natural optimal state, promoting biodiversity recovery.

7. Policy Statements

To ensure effective achievement aforementioned policy principles, the National Policy on Biodiversity of Sri Lanka was structured around seventeen (17) policy statements, presented under eight (08) thematic areas:

Thematic area 1: Conservation of species and the ecosystem diversity that harbours them

1. Foster comprehensive, scientifically informed, and stakeholder-engaged conservation measures at landscape and seascape levels to addressing threats.
2. Safeguard sustainable use by adhering to international agreements, while institutionalising stakeholder-driven management approaches management and incentivising state and private landowners to adopt effective biodiversity management.

Thematic area 2: Genetic diversity

3. Ensure fair access to genetic material by enhancing institutional readiness for technological advancements, establishing institutional mechanisms to foster equitable benefit sharing and advancing responsible biotechnology initiatives,
4. Mandate strategic interventions to prevent genetic pollution and erosion by establishing mechanisms for managing genetically modified organisms and combatting bio piracy, supported by appropriate legal reforms, ensuring the preservation of genetic diversity of critical biodiversity for present and future utilisation.

Thematic area 3: Value of biodiversity

5. Strengthen legal frameworks and foster self-motivated voluntary actions among Sri Lankans to ensure the safety of the biodiversity, particularly the safety of pollinators and seed dispersers that are critical for flora and crop production, as well as biodiversity essential for water systems, food systems and soil health.
6. Ensure halting of biodiversity loss through sustainable land-use practices and wise -use of non-timber forest products thus safeguarding food and medicinal security, and allowing for one-health approaches, while ensuring viability of beneficial biodiversity functions of in climate change mitigation and adaptation, tourism, and disaster mitigation.

Thematic area 4: Traditional use and community

7. Establish mechanisms to recognise and safeguard rights of local communities by allowing for fair, equitable and sustainable access to biological resources.
8. Incorporate traditional knowledge and practices into biodiversity management, research and development, while promoting equity and equality, inclusiveness and gender-responsiveness.

Thematic area 5: Valuation, financial mechanisms and equitable benefit sharing / investing in natural capital

9. Foster holistic frameworks and market-based instruments to incentivise conservation and investments in natural capital, with the establishment of mechanisms for credit schemes based on biodiversity that integrate emerging concepts and incentivise stakeholders towards long-term sustainability and economic benefits.
10. Implement innovative mechanisms that integrate financial considerations and sustainable development to advancing investment into natural capital, while fostering partnerships with communities, international partners, NGOs and the private sector to establish pathways and incentives for contributing to biodiversity protection, restoration, and sustainable land/seascapes.

Thematic area 6: Research and development, data and communication

11. Mandate comprehensive and robust frameworks, that additionally provide the necessary support and finance to conducting regular, continuous, and long-term biodiversity monitoring and evaluations, investigations, assessments and audits within Sri Lanka, to obtain critical information required for evidence-based decision-making and conservation planning.
12. Institutionalise informed conservation strategies and adaptive management based on geospatial technologies backed by biodiversity data, together with strategies to foster transparency, knowledge sharing, and collaboration, which will ensure capacity-building at all levels

13. Ensure integration of biodiversity considerations in all decision-making processes by making biodiversity data readily accessible during planning and development processes.

Thematic area 7: Drivers of biodiversity loss, threats and issues

14. Foster comprehensive environmental protection and sustainability frameworks aimed at combatting combat key drivers such as, pollution, invasive species, human animal conflicts, climate change driven issues, ecosystem antagonistic developments and the over-exploitation and degradation of air, water, and soil, which will additionally minimise further impacts on biodiversity and increase biodiversity resilience by emphasising the protection of vulnerable ecosystems.

15. Guarantee national and international cooperation, together with the empowering of legal frameworks to combat wildlife trafficking and illegal and unsustainable trade while enabling sustainable commercial use to protect biodiversity from exploitation.

16. Ensure habitat conservation and restoration, with comprehensive biodiversity management to achieve protection of critical ecosystems, while maintaining optimal biodiversity in landscape and seascape-levels; a comprehensive National Biodiversity Strategic Action Plan (NBSAP) will be regularly updated and implemented, with ongoing progress monitoring.

Thematic area 8: Robust decision making, cooperation, connectivity and communication between stakeholders

17. Empower institutions with clear mandates, capacitate practitioners and encourage active participation of a willing citizenry to allow for right and timely decision making and implementation, that considers all relevant facets of biodiversity.

8. Policy Goals

This policy presents eight policy goals. Policy goals have been prepared based on the eight (8) thematic areas

Thematic area 1: Conservation of species and the ecosystem diversity that harbours them

1. Ecosystem functions and services and their link to species and genetic diversity in both wild, feral and domestic biodiversity are known and valued with intersectoral and transboundary synergies established to ensure biodiversity focused decision making; ensuring *in-situ* and *ex-situ* conservation of biodiversity and ecosystems that harbour them and equitable benefit sharing by utilising capacitated human resources, infrastructure, technologies, information and its access.

Thematic area 2: Genetic diversity

2. Genetic and species diversity in all spheres are maintained, enhanced and restored, to ensure resilience, increase viability of populations and enhance integrity of connected ecosystems, which will be achieved through ethical regulations about genetics, that provides a platform to preserve diversity, prevent pollution, and advance sustainable biotechnology.

Thematic area 3: Value of biodiversity

3. Science backed, stakeholder driven and outcome-oriented biodiversity conservation, wise use and sustainable use pathways are introduced and implemented to enhance ecosystem and human health, disaster resilience, food and nutritional security, climate adaptation, tourism sustainability, and overall sustainable development in Sri Lanka.

Thematic area 4: Traditional use and community

4. The spiritual, cultural and social affinities, reliance and sentience with mother nature and biological and cultural diversity are preserved, shared and passed on to future generations, by leveraging stakeholder engagement, mutual respect, equity and equality, to ensure harmonious living and prosperity.

Thematic area 5: Valuation, financial mechanisms and equitable benefit sharing / investing in natural capital

5. Investment environment of Sri Lanka is strengthened with frameworks for sustainable and wise use of biodiversity, that contain appropriate safeguards and incentives for implementation, access to financial resources, capacity-building, technical and scientific cooperation and access to and transfer of technology.

Thematic area 6: Research and development, data and communication

6. Biodiversity in anthropogenic landscapes and their ecoinformatics are utilised to ensure the optimal scenario of biodiversity presence, wise use, human and other biota coexistence and enjoyment through robust initiatives.

Thematic area 7: Drivers of biodiversity change, threats and issues

7. Human induced threats to biodiversity are managed and extinction risk of species due to natural and anthropogenic phenomena are studied, forecasted and addressed scientifically, with right stakeholder participation to ensure good governance that results in the wellbeing of ecosystems and people.

Thematic area 8: Robust decision making, cooperation, connectivity and communication between stakeholders

8. Capacitated, well connected and resourceful scientific, technical and administrative set up, ensuring the mainstreaming of biodiversity to all aspects of decision making both nationally and internationally.

9. Policy Implementation

9.1 Strategies

To ensure policy statements and goals are achieved following strategies should be implemented.

Thematic area 1	Conservation of Biodiversity and ecosystems that harbour them
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Goal		Ecosystem functions and services and their link to species and genetic diversity in both wild, feral and domestic biodiversity are known and valued with intersectoral and transboundary synergies established to ensure biodiversity focused decision making; ensuring <i>in-situ</i> and <i>ex-situ</i> conservation of biodiversity and ecosystems that harbour them and equitable benefit sharing by utilising capacitated human resources, infrastructure, technologies, information and its access.
Strategies	1	Ensure timely, scientific, and coordinated landscape and seascape approaches, involving stakeholders, crucial for safeguarding endemic, native, and migratory biodiversity across terrestrial, aquatic, coastal, and marine ecosystems.
	2	Establish formal and community-driven conservation strategies, coupled with strategic national reforms, that can mitigate current and anticipated threats to biodiversity.
	3	Foster national commitments to international agreements, promoting scientifically sound biodiversity introductions, incentivizing private land conservation, and employing protective frameworks for identified areas in halting human-induced extinction and ensuring sustainable biodiversity management.

<i>Thematic area 2</i>	<i>Genetic diversity</i>
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Goal		Genetic and species diversity in all spheres are maintained, enhanced and restored, to ensure resilience, increase viability of populations and enhance integrity of connected ecosystems, which will be achieved through ethical regulations about genetics, that provides a platform to preserve diversity, prevent pollution, and advance sustainable biotechnology.
Strategies	1	Enforce regulatory frameworks ensuring fair access to genetic material, preventing pollution and erosion through comprehensive mitigation measures.
	2	Introduce strategies for institutions and stakeholders to adapt to technological advancements in genetic material information sharing, including Digitally Sequenced Information (DSI).
	3	Ensure equitable benefit-sharing mechanisms for Sri Lanka's biodiversity capital and prevent bio-piracy through legal reforms, diligent institutions, and informed citizens.
	4	Promote biotechnology and entrepreneurial initiatives with national incentives, agreements with third parties, and state support, while also implementing mechanisms for the safe use and development of genetically modified organisms and mapping genetic diversity for preservation.

<i>Thematic area 3</i>	<i>Value of biodiversity</i>
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Goal		Science backed, stakeholder driven and outcome-oriented biodiversity conservation, wise use and sustainable use pathways are introduced and implemented to enhance ecosystem and human health, disaster resilience, food and nutritional security, climate adaptation, tourism sustainability, and overall sustainable development in Sri Lanka.
Strategies	1	Safeguard pollinators and seed dispersers vital for survival of flora and sustained crop production in Sri Lanka.
	2	Promote the importance of biodiversity in water systems for potable water and dynamic lotic and lentic processes and

		institutionalize the required frameworks.
	3	Document, protect, and enhance soil-associated biodiversity to ensure soil health and services, recognizing the role of biodiversity in disaster prevention and ecosystem-based disaster risk reduction.
	4	Ensure equitable access to food and medicinal security associated with biodiversity for all, including Indigenous Peoples and local communities, women, differently-abled individuals, senior citizens, and youth.
	5	Investigate and regulate the use of Non-Timber Forest Produce (NTFP) within and outside protected areas, emphasizing sustainable practices and innovative financial approaches, and reinforce the connection between biodiversity, tourism, and sustainable development, One Health, while integrating biodiversity into climate change mitigation, adaptation plans, and ecosystem-based adaptation strategies.
	6	Implement sustainable land-use planning to minimize biodiversity loss from deforestation and habitat conversion.

<i>Thematic area 4</i>	<i>Traditional use and community</i>
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Goal		The spiritual, cultural and social affinities, reliance and sentience with mother nature and biological and cultural diversity are preserved, shared and passed on to future generations, by leveraging stakeholder engagement, mutual respect, equity and equality, to ensure harmonious living and prosperity.
Strategies	1	Acknowledge and integrate traditional knowledge systems into biodiversity management, collaborating with local communities to exchange knowledge for the mutual benefit of safeguarding their sustainable use of natural resources.
	2	Mainstream gender equality in conservation initiatives and decision-making processes, fostering the crucial roles of women and girls in resource use and conservation.

	3	Accredit fair access to biological resources and respect and protect traditional beliefs related to biodiversity, integrating them into conservation practices while preventing exploitation.
	4	Regulate stakeholder engagement for the continuation of sustainable traditional practices within Protected Areas, balancing conservation and cultural practices.
	5	Promote mental and spiritual well-being through a strong connection with nature, incorporating conservation strategies that enhance spiritual enrichment through interaction with natural ecosystems and traditional practices.

Thematic area 5

Valuation and investing in nature

Goal		Investment environment of Sri Lanka is strengthened with frameworks for sustainable and wise use of biodiversity, that contain appropriate safeguards and incentives for implementation, access to financial resources, capacity-building, technical and scientific cooperation and access to and transfer of technology.
Strategies	1	Establish mechanisms to recognize and reward future biodiverse credits, incentivizing stakeholder initiatives for habitat restoration and species conservation, ensuring long-term sustainability, conservation, and economic outcomes.
	2	Acknowledge the crucial role of forests and natural ecosystems in oxygen production, implementing measures to enhance and protect oxygen-rich environments, and quantifying and rewarding future oxygen credits for economic and environmental gains.
	3	Integrate carbon sequestration and reduction efforts into conservation strategies, promoting nature-based solutions for greenhouse gas mitigation and establishing mechanisms for earning and trading carbon credits with nationally determined guidelines.
	4	Promote natural capital assessment and accounting using the SEEA framework for better decision-making, introducing market-based instruments to incentivize biodiversity conservation

		alongside command and control tools
	5	Foster partnerships with NGOs and the private sector to enhance biodiversity conservation and restoration efforts, providing incentives for private investors contributing to biodiversity protection and sustainable landscapes.
	6	Prioritize community-based conservation initiatives, recognizing the value of local knowledge and encouraging community investments, traditional resource management practices, and in-kind contributions for sustainable conservation outcomes.
	7	Explore financing mechanisms like blue and green bonds and investment in nature, establishing biodiversity baselines and marine spatial planning for sustainable development.

<i>Thematic area 6</i>	<i>Research and development, data and communication</i>
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Goal		Biodiversity in anthropogenic landscapes and their ecoinformatics are utilised to ensure the optimal scenario of biodiversity presence, wise use, human and other biota coexistence and enjoyment through robust initiatives.
Strategies	1	Establish a comprehensive framework for regular biodiversity audits in Sri Lanka, ensuring institutional and financial support for evidence-based decision-making.
	2	Mandate the continuous collation and updating of biodiversity data from various sources to inform conservation strategies, incorporating research institutions, government agencies, universities, NGOs, citizen science, and national/international data archives.
	3	Promote open access to biodiversity data for transparency and collaboration, emphasizing the integration of spatial data through GIS to enhance understanding of biodiversity patterns and support targeted conservation actions.
	4	Recognize the significance of biodiversity beyond national jurisdiction, encouraging collaborations to protect shared marine biodiversity and address transboundary issues.
	5	Deliver capacity-building initiatives to enhance skills and expertise in biodiversity management, while establishing

		infrastructure for archiving and analyzing large biodiversity datasets.
	6	Foster collaborations between national and international research institutions, ensuring readily accessible biodiversity data for environmental assessments and decision-making processes, and ensuring policy compatibility across various national policies related to biodiversity, including Red Listing, species recovery plans, and management effectiveness of protected areas using tools like METT.

Thematic area 7

Drivers of biodiversity change, threats and issues

Goal		Human induced threats to biodiversity are managed and extinction risk of species due to natural and anthropogenic phenomena are studied, forecasted and addressed scientifically, with right stakeholder participation to ensure good governance that results in the wellbeing of ecosystems and people.
Strategies	1	Enhance environmental regulations through establishing and enforcing stringent regulations targeting pollution of air, water, and soil to prevent biodiversity degradation and prioritize sustainable waste management practices and implement measures to reduce pollution impacts on ecosystems.
	2	Focus on climate resilience by prioritizing climate change adaptation and mitigation strategies, specifically directing efforts towards protecting vulnerable ecosystems and enhancing biodiversity resilience by implementing measures that address the impact of a changing climate on natural habitats and species.
	3	Foster invasive species management frameworks to develop and strengthen facilities and institutional structures to implement comprehensive invasive species management policies and establish screening protocols to prevent the introduction and spread of alien invasive species, ensuring early detection and rapid response to minimize impacts on native biodiversity, including exploring biomass utilization of invasives.

	4	Establish all incorporating mechanisms to conserve genetic diversity by establishing gene banks, seed banks, and conservation programs specifically tailored for threatened indigenous species thus preventing genetic pollution and erosion and degradation of native biodiversity.
	5	Strengthen law enforcement by way of enhanced interagency and international cooperation to combat wildlife trafficking and illegal and unsustainable trade of species by introducing pathways for sustainable commercial use of local biodiversity, striking a balance between conservation and responsible utilization.

Thematic area 8

Institutional and human resource capacity

Goal		Capacitated, well connected and resourceful scientific, technical and administrative set up, ensuring the mainstreaming of biodiversity to all aspects of decision making both nationally and internationally.
Strategies	1	Strengthen the Biodiversity Secretariat by expanding its cadre to include scientific service staff, scientists, and administrative personnel. Invest in technology and capacity building to handle big data, implement Management Information Systems (MIS), ensure data security, and facilitate the sharing of biodiversity data.
	2	Streamline existing expert groups/committees while establishing new ones to cover all aspects of biodiversity policy. Develop an online Monitoring and Evaluation (M&E) portal for National Biodiversity Strategy and Action Plan (NBSAP), National Environmental Action Plan (NEAP), RAMSAR, CMS, CITES reporting, and periodic auditing through shared information.
	3	Form a specialized cadre and enhance capacity within the Ministry of Planning for environmental valuation, green finance, and natural capital asset management by creating frameworks to incorporate environmental considerations into economic planning, fostering sustainable financial practices, and managing natural resources as valuable assets.

	4	Expand the number and effectiveness of protected areas, incorporating existing mechanisms for Protected Area (PA) declarations. Adopt Essential Ecosystem Areas (ESA), Other Effective Conservation Measures (OECMs), Ecologically or Biologically Significant Areas (EBSA), and marine spatial planning to safeguard critical habitats.
	5	Incentivize private landowners by introducing incentive-driven private conservancies and promoting biodiverse homesteads/home gardens, encouraging private sector involvement in biodiversity conservation.
	6	Establish mechanisms to synergize various policies across different sectors toward pro- biodiversity policy directives and tackle antagonistic policies through policy reforms.

10. *Applicability and Scope*

This policy aligns with Sri Lanka's forward-thinking vision, determination, commitment and outlook towards biodiversity and its management, which includes species that inhabit permanently, visit as well as species who have invaded, across all ecosystems: terrestrial, aquatic, coastal and marine. Additionally, this policy will harmoniously enhance the vision, directives, and synergies of all government agencies working towards and in the fields of environment, wildlife conservation, forestry management, fisheries management, river-basin, other aquatic systems and coastal systems management, air and water management, agriculture, livestock and national planning. This policy will positively impact actions taken in the development sector, such in transport, energy, aquaculture, among others by cementing adherence to sustainable development goals (SDGs) during all aspects of development.

This policy will also reform the management, monitoring and evaluation of governmental entities, non-governmental organisations, community-based organisations, indigenous and local community forums, and provide overarching policy directives regarding all business activities related to biodiversity.

Furthermore, this policy will contribute to the reformation of Sri Lanka's educational and skills development sectors, encompassing all levels and ages from primary education to private learning of senior citizens, to foster a culture of involvement in biodiversity conservation and sustainable development. Additionally, this policy will

support in reforming the educational and skills development sectors of the country from primary to senior citizen level as well as involvement.

Moreover, this policy is expected to pave pathways for the development of biodiversity sensitive, biodiversity focused and biodiversity driven finance, banking, entrepreneurial activities, across the planning and commercial sectors. This will help in aligning economic development with biodiversity conservation goals and significantly influence the activities of the Department of National Planning and the Ministry of Finance.

10.1 Responsibility & Authority

As biodiversity is the nation's natural capital, all agencies are responsible to ensure the adoption of this policy. Ministries responsible for subjects of environment, biodiversity, wildlife, forestry, coastal and marine, agriculture and livestock, fisheries, urban development, tourism, irrigation and water, education, social reforms, energy, intellectual property, foreign affairs, defense, finance, national planning and land will be directly responsible for executing the policy statements herein with the support of all line agencies and other stakeholders. Due to the diverse nature of the responsibilities, the responsibilities policy names the Ministry of Environment as the overarching authority to ensure all above mentioned responsible government institutes and all other stakeholders adopt the policy statements in their own policy reforms, legal instruments, strategies and actions.

10.2 Monitoring & Evaluation

The Department of National Planning (NPD) has the sole responsibility of carrying out the M&E either independently or in collaboration with the Ministry of Environment. The outcomes of this policy can be measured every three years along with the national audit undertaken for NBSAP and for National Reporting to CBD for which already stringent measures are in practice within the MoE. It is also recommended that M&E related to other conventions are also made in line with this policy thus enabling regular monitoring.

Additionally, Red Listing of species and ecosystems should become part of the monitoring process as well as short, mid and long term evaluation of NEAP.

In order to adjust, highlight lessons learnt and to build support as well as to ensure strategies outlined in the policy are achieved, M&E should be implemented by all stakeholders, thus ensuring effectiveness of the conservation and wise use of biodiversity are monitored both for sensitivity and vulnerability.

11. Glossary

The glossary is derived from the definitions given in Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Convention on Biological Diversity (CBD), World Bank and Ramsar Convention.

1. **Adaptive capacity** = The general ability of institutions, systems, and individuals to adjust to potential damage, to take advantage of opportunities, or to cope with the consequences.
2. **Alien Invasive Species** = Alien species that become established in natural or semi-natural ecosystems or habitat, are agents of change, and threaten native biological diversity.
3. **Benefits** = Advantage that contributes to wellbeing from the fulfillment of needs and wants. In the context of nature's contributions to people (see Nature's contributions to people), a benefit is a positive contribution. (There may also be negative contributions, dis-benefits, or costs, from Nature, such as diseases).
4. **Biodiversity** = The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.
5. **Biodiversity Hotspot** = A generic term for an area high in such biodiversity attributes as species richness or endemism. It may also be used in assessments as a precise term applied to geographic areas defined according to two criteria: (i) containing at least 1,500 species of the world's 300,000 vascular plant species as endemic, and (ii) being under threat, in having lost 70% of its primary vegetation.
6. **Carbon footprint** = A measure of the total amount of carbon dioxide emissions, including carbon dioxide equivalents, that is directly and indirectly caused by an activity or is accumulated over the life stages of a product.
7. **Climax state** = The final stage of ecological succession attainable by a biotic community that is self-sustaining. Such communities remain in relative

equilibrium until a disturbance or human interference restarts the succession process.

8. **Food security** = When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
9. **Drivers** = Drivers of change are all the factors that, directly or indirectly, cause changes in nature, anthropogenic assets, nature's contributions to people and a good quality of life. Direct drivers of change can be both natural and anthropogenic.
10. **Digitally Sequenced Genetic Information** = digitally stored DNA, RNA, protein and metabolites data and techniques used in sequencing
11. **Genetic erosion** = The loss of genetic diversity, including the loss of individual genes or particular combinations of genes, and loss of varieties and crops.
12. **Genetic pollution** = Gene flow from domestic, feral, and non-native species into wild indigenous species.
13. **Indigenous people** = Distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced. (Definition from World Bank)
14. **Mainstreaming biodiversity** = Mainstreaming means integrating actions related to conservation of biodiversity into strategies relating to production sectors.
15. **One health** = An integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems
16. **Optimal biodiversity** = Ecosystem components having the maximum viability (minimum extinction probability) and maximum capacity of functioning and services
17. **Sustainable use (of biodiversity)** = The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.
18. **Restoration** = Any intentional activities that initiates or accelerates the recovery of an ecosystem from a degraded state.
19. **Sensitivity** = The likelihood of change when a pressure (chemical, physical, hydrological and biological) is applied to a species
20. **Vulnerability** = The inability to withstand the effects of a hostile environment, and the quality or state of being exposed to the possibility of being damaged.
21. **Wise use** = conservation and sustainable use of wetlands and all the services they provide, for the benefit of people and nature

Annexure 1

List of Relevant Policies:

- Tourism Policy 2024
- National Water Resources Policy of Sri Lanka, 2023
- National Climate Change Policy, 2023
- National Environment Policy 2003 and 2022
- National Policy on Environmentally Sensitive Areas 2022
- National Policy on Conservation and Sustainable Utilization of Mangrove Ecosystems in Sri Lanka 2020
- National Policy and Strategy on Sustainable Development for a Sustainably Developed Sri Lanka, 2020
- National Policy and Strategies on Traditional Knowledge and Practices Related to Biodiversity of 2020
- National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing of 2020
- National Policy on Sustainable Consumption and Production for Sri Lanka, 2019
- National Energy Policy & Strategies of Sri Lanka, 2019
- Coastal zone and coastal resource management plan with policies ,2019
- National Waste Management Policy 2019
- National Physical Planning Policy & The Plan - 2017 - 2050
- National Policy on Invasive Alien Species (IAS) of Sri Lanka, Strategies and Action Plan 2016
- National Climate Change Policy, 2012
- National Biosafety Policy, 2011
- National Biotechnology policy 2009
- National Policy and Strategy on Cleaner Production for Tourism Sector 2008
- National Policy and Strategy on Cleaner Production for Fisheries Sector 2008
- National Agriculture Policy, 2007
- National Land Use Policy of Sri Lanka 2007
- National Policy on Wetlands 2006
- National Policy on Wildlife Conservation 2006
- National Watershed Management Policy, 2004
- National Forest Policy 1995

(END)