



Biodiversity and Ecosystem Conservation

Highlights

- Biodiversity includes genetic, species, and ecosystem diversity, and is essential for food, water, and health. It supports provisioning, cultural, and supporting services like pollination and nutrient cycling.
- 70% of Sri Lanka's biodiversity is in wet zones, where 50% of the population lives, yet these areas are under protected.
- Globally we are in a triple planetary crisis climate change, land degradation, and biodiversity loss.
- The world is experiencing a 6th mass extinction, with 800 species already extinct and 1 million out of 8 million species threatened. Extinction rates are now 100–1000 times higher than natural levels.
- Sri Lanka has a large extent of protected land, but it's not enough to safeguard biodiversity hotspots. Enhancing connectivity between forest fragments and enriching home gardens can support viable populations. Rubber and tea estates with natural forest patches offer restoration opportunities.
- The private sector, once resistant to conservation, now leads science-based initiatives, with examples like the Kekilla conservation forest developed through public-private partnerships.
- Financial gaps and lack of coordination with government agencies remain major barriers. Business models and incentives are needed to align conservation with profitability.

- Sri Lanka has strong environmental policies, but implementation is weak due to governance issues and lack of coherence across sectors. For example, irrigation expansion has worsened human–elephant conflict despite existing policies.
- Biodiversity lacks economic value, making it hard to prioritize in development planning.
- Effective conservation must be rooted in scientific research. Captive breeding and habitat restoration often fail without species–specific knowledge.
- Many replanting programs lack proper design due to gaps in ecological understanding.

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Recommendations

- Sri Lanka must move beyond having policies on paper and ensure they are actively enforced through better governance and accountability. This includes aligning sectoral policies and resolving conflicts, such as those between irrigation expansion and wildlife conservation.
- Protected areas need more funding, staffing, and strategic planning to maintain ecological health and resilience. Enhancing connectivity between fragmented habitats and integrating biodiversity into land-use planning are key steps.
- Conservation actions should be guided by ecological research to avoid failures in initiatives like captive breeding and replanting. Investing in species–specific and habitat–level studies will improve long-term outcomes.
- Encourage public–private partnerships by creating business models that align conservation with profitability. Removing regulatory and financial barriers will help unlock private investment in biodiversity efforts.
- Introduce financial tools such as green bonds, biodiversity credits, and payments for ecosystem services to make biodiversity economically visible. Valuing nature will help integrate it into national development priorities.
- Sri Lanka must optimize the use of available funds and attract new financing to meet biodiversity targets. Aligning national strategies with frameworks like the SDGs and Global Biodiversity Framework will strengthen impact and accountability.