

# SAVING BIODIVERSITY, SECURING EARTH'S FUTURE

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

On this [World Environment Day](#) (June 5), with the novel coronavirus pandemic raging across our vast country, we must reflect on the ways to rebuild our relationship with nature. India's vast and rich biodiversity gives the nation a unique identity, of which we can be proud. The varied ecosystems across land, rivers, and oceans, feed our people, enhance public health security, and shield us from environmental disasters. Our biodiversity also serves as a perpetual source of spiritual enrichment, intimately linked to our physical and mental well-being.

And while the precise economic value of all ecosystem services provided by biodiversity may not be known, estimates suggest our forests alone may yield services worth more than a trillion rupees per year. Imagine how much greater this value will be with grasslands, wetlands, freshwater, and marine added.

The time to limit global warming is melting away

Sadly, today, we face not only one of the worst public health crises but also worldwide declines in biodiversity. Globally, we have lost 7% intact forests since 2000, and recent assessments indicate that over a million species might be lost forever during the next several decades. Our country is not an exception to these trends.

Climate change and the ongoing pandemic will put additional stresses on our natural ecosystems even though it is becoming clear that repairing our dysfunctional relationship with nature is one of the ways to mitigate climate change and curtail future outbreaks of infectious diseases that can bring unimaginable misery. Thus, preserving biodiversity is directly relevant to the social, economic, and environmental well-being of our people. We must rethink and reimagine the concept of One Health for all living organisms, including the invisible biota in soils that sustain our agricultural systems.

Fortunately, our government is considering major investments in biodiversity science to meet societal needs. In 2018, the Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC) in consultation with the Ministry of Environment, Forest, and Climate Change and other Ministries approved an ambitious National Mission on Biodiversity and Human Well-Being (NMBHWP). A Bengaluru-based Biodiversity Collaborative is working with the National Biodiversity Authority to hold consultations and prepare road maps of the Mission that will be steered by a core of the country's leading biodiversity science and conservation organisations, from public, academic, and civil society sectors.

Strong policies on black carbon can sharply cut glacier melt, says World Bank study

The Mission will strengthen the science of restoring, conserving, and sustainably utilising India's natural heritage; embed biodiversity as a key consideration in all developmental programmes, particularly in agriculture, ecosystem services, health, bio-economy, and climate change mitigation; establish a citizen and policy-oriented biodiversity information system; and enhance capacity across all sectors for the realisation of India's national biodiversity targets and United Nations Sustainable Development Goals (UN SDGs).

Furthermore, the Mission will allow India (home to nearly 8% of global biodiversity on just 2.3% of global land area, and containing sections of four of the 36 global biodiversity hotspots) to emerge as a leader in demonstrating linkage between conservation of natural assets and

societal well-being.

The ongoing spread of COVID-19 places this Mission among the most significant national initiatives. The pandemic has exposed the dysfunctional relationship between humanity and nature, and we must urgently address the issues it has laid bare: the emergence of infectious diseases; lack of food and nutritional security; rural unemployment; and climate change, with all its stresses on nature, rural landscapes, and public health. In response to these critical and interrelated issues, the Mission offers a holistic framework, integrated approaches, and widespread societal participation.

Study blames climate change for 37% of global heat deaths

The Mission's comprehensive efforts will empower India to restore, and even increase, our natural assets by millions of crores of rupees. Mitigation programmes will lessen the impacts of climate change and other natural disasters, such as pandemics and floods. We can rejuvenate agricultural production systems and increase rural incomes from biodiversity-based agriculture while also creating millions of green jobs in restoration and nature tourism. Restoration activities across India's degraded lands, which amount to almost a third of our land area, alone could generate several million jobs.

The Mission will help India meet its commitments under the new framework for the Convention on Biological Diversity (CBD), and UN SDGs related to pressing social issues including poverty alleviation, justice and equity, and protection of life. It will generate a strong national community committed to sustaining biodiversity, promoting social cohesion and uniting the public behind an important goal.

Mission programmes will offer nature-based solutions to numerous environmental challenges, including degradation of rivers, forests, and soils, and ongoing threats from climate change, with the goal of creating climate-resilient communities. Scientific inputs, especially related to geospatial informatics and policy, can guide the development of strategies for conservation and ecosystem management.

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Equally important, the Mission's "One Health" programme, integrating human health with animal, plant, soil and environmental health, has both the preventive potential to curtail future pandemics along with the interventional capability for unexpected public health challenges. Additional programmes, directed at food and nutritional security, will in turn also influence public health outcomes.

The planned Mission recognises that we need a strong and extensive cadre of human resources required to meet the enormous and complex environmental challenges of the 21st century. This will require training professionals of the highest calibre in sustainability and biodiversity science, along with an investment in civil society outreach. The gains of environmental change will be upheld and carried forward by the cultural change from environmental education for millions of students, from kindergarten to postgraduate levels.

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Finally, biodiversity is everywhere, and we interact with biodiversity all the time in our daily lives. Public engagement, whether it is in the policymaking arena, or in exploration, restoration and

conservation of biodiversity, is a critical component of the planned Mission.

Today, on the heels of the International Day for Biological Diversity celebrated last month, nothing could be more important than to renew our pledge to nurture all life on earth.

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