

## Madhav Dhananjaya Gadgil (1942–2026)

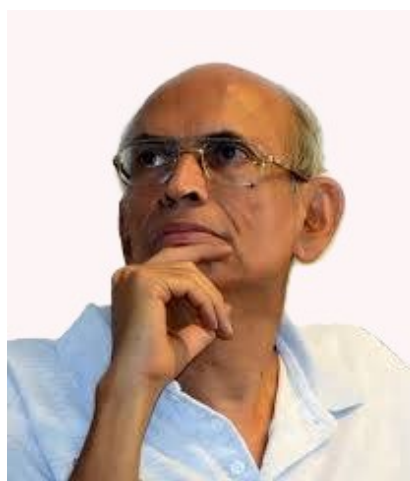
At the age of 14, inspired by ornithologist Salim Ali, Madhav Gadgil determined his life-trajectory—he was going to become a field ecologist. It was a steadfast decision, rooted in inspiration from his parents, one he never regretted or wavered from. As the youngest child of Dhananjaya and Pramila Gadgil, Madhav inherited a series of critical family traits: a love for the outdoors, respect for communities that lived with nature, vehement opposition to caste-based oppression, and a healthy disregard for authority.

In 1958, Madhav enrolled in the BSc programme at Ferguson College, one of the oldest and best-known undergraduate colleges in Pune. Despite taking a triple major in chemistry, botany, and zoology, Madhav engaged with a range of other disciplines outside the curriculum, learning college-level mathematics from a family friend and imbibing physics, political science, sociology, anthropology, and history by reading widely. It was in Ferguson College, at the age of 20, that Madhav met Sulochana—a young, equally brilliant mathematics graduate who would later become his spouse.

In 1963, Madhav began his MSc programme in marine ecology at the Institute of Science in Mumbai. While he enjoyed his time in Mumbai, he rejected the imitative research that he was asked to do for his thesis and found himself disillusioned by the prevailing hierarchical atmosphere. At that time, he was interested in furthering his research in marine ecology and applied to Harvard, where he was admitted. However, his mother was eager to see him married before he left, so he and Sulochana were soon wed. In 1965, when Madhav was 23 and Sulochana was 21, they moved to Cambridge, Massachusetts, where Sulochana also enrolled in a PhD programme in mathematics. At Harvard,

Madhav was inspired by evolutionary biologist E. O. Wilson to pursue a PhD in theoretical biology, enlisting Sulochana's mathematical expertise in some areas. He was one of the earliest users of computers for this work, publishing several papers on r- and K-selection that later became citation classics. It was also at Harvard that Madhav encountered his two 'favourite edicts': "Science is a systematic enterprise of scepticism" (J. D. Bernal) and "Science anchors itself to the hard bedrock of empirical facts, however unpalatable they might be" (A. N. Whitehead).

Completing his PhD in under three years, Madhav stayed on at Harvard as an IBM Fellow until 1971, waiting for Sulochana to finish her PhD and postdoctoral research. In 1971, they returned to India, where Madhav joined the Agharkar Research Institute in Pune, working with his former undergraduate teacher, V. D. Vartak.



In 1973, he and Sulochana moved to Bengaluru, which would be their home for the next three decades. They joined the Centre for Theoretical Studies at the Indian Institute of Science (IISc), Bengaluru, at the invitation of the then Director, Satish Dhawan. Both of their children were born on the IISc campus. Sulochana furthered her research in atmospheric

science, playing an instrumental role in founding the Centre for Atmospheric Sciences (CAOS). Madhav continued to work in theoretical ecology but widened his research base to examine a range of issues in plant ecology, wildlife, natural history, ecosystem services, and other aspects of the Western Ghats.

It was during this period, starting in 1979, that he met the remarkable botanist M. K. Prasad. This encounter led him to join the Advisory Panel constituted by Prime Minister Indira Gandhi to examine the Silent Valley hydroelectric project. Based on an extensive three-day visit to the Mullaperiyar plateau, the team submitted a report on the region's rare biodiversity, which was influential in driving the eventual decision to declare the entire region a biosphere reserve.

In 1983, Madhav founded the Centre for Ecological Sciences (CES) at IISc, a new centre sponsored by the Department of Environment, Government of India, to research the ecology of the Western Ghats. Among his many legacies and contributions to Indian science, CES stands out for publishing several influential research papers on various aspects of ecology and conservation over the ~42 years since its inception. As the founder of the Centre, Madhav was instrumental in stimulating research spanning a range of scientific fields, encompassing theoretical and empirical research in plant and wildlife ecology, human evolution, satellite remote sensing, landscape ecology, animal behaviour, and human ecology. Especially significant was his pioneering work on ecological history. With historian Ram Guha, he co-authored two hugely influential books that opened a field of study on India's ecological history: *This Fissured Land*, and *Ecology and Equity: The Use and Abuse of Nature in Contemporary India*.

Madhav chaired the Scientific, Technical, and Advisory Panel of the Global Environmental Facility from 1998 to 2002 and, as a Pew Fellow in Conservation and the Environment, established the Western Ghats Biodiversity Network in 1994 and laid the foundation for People's Biodiversity Registers. In this work, he followed the ideas that he imbibed from his early experiences travelling in the field—a deep respect for the traditional knowledge of local communities of grazers, farmers, fishers, and forest dwellers, and a consciousness that this knowledge needed to be documented for them to retain rights over the management of their ecological heritage.

In 2011, Madhav chaired the Western Ghats Ecology Expert Panel, which, based on rigorous collation of existing data, published a report recommending that large sections of the Western Ghats were ecologically sensitive areas where unplanned infrastructure development could prove hazardous to ecology, the economy, and human life. The recommendations of this influential and controversial report, also known as the Gadgil Report, were not acted upon, but the aftermath of recent environmental disasters,

such as the 2018 Kerala floods, demonstrated the far-sightedness of these recommendations.

Over decades, Madhav's wide-ranging body of work has been synthesised in over 200 peer-reviewed publications and six books, receiving widespread national and international acclaim. He also wrote numerous articles to communicate science to the public. He was elected to the three leading science academies in India, as well as the World Academy of Sciences and the US National Academy of Sciences. He received several prestigious national awards, including the Padma Shri and Padma Bhushan. He was also recognised internationally with accolades such as the Volvo Environment Prize, the Tyler Prize for Environmental Achievement, and the UN Champions of the Earth, among many other honours. But the legacy he was perhaps most proud of was his fieldwork in the forests and grasslands of his beloved Western Ghats, his extensive engagement with democratic grassroots movements, and his contributions to shaping a different approach to science and policy at the national and international stage—towards a collective, people-centric approach to ecological conservation that recognises the need for

human development that walks hand-in-hand with nature.

In July 2025, Madhav Gadgil lost his life partner, Sulochana, after spending several decades together. A few months later, he passed away on 7 January 2026, following a brief illness. He is perhaps best known to the public for his work on the Western Ghats Ecology Expert Panel report. Years later, we can clearly see the dangers of ecologically insensitive development surrounding us, particularly its impact on India's readiness for climate change. His research was multi-faceted, though, ranging from studies on the impacts of dams to sacred groves, ecological history, satellite remote sensing, fish diversity, evolutionary human genetics, and much more. He was an exceptional ecologist who merged theoretical and empirical knowledge in unprecedented ways, paving new research avenues for scientists nationwide.

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HARINI NAGENDRA

*School of Climate Change and Sustainability, Azim Premji University, Bengaluru 562 125, India.  
e-mail: harini.nagendra@apu.edu.in*

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