International Day for Biological Diversity 2026: Acting locally for global impact

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Introduction

The United Nations International Day for Biological Diversity highlights the urgent need to protect the diversity of life on Earth and the ecological systems upon which humanity depends. Biodiversity supports food systems, freshwater availability, climate regulation, medicine, disaster resilience, and economic activity worldwide (1). Yet biodiversity is declining at an unprecedented rate. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), approximately one million animal and plant species are currently threatened with extinction due to human activities (2). Recognizing the scale of this ecological crisis and the need for coordinated international action, the international community adopted the Kunming–Montreal Global Biodiversity Framework, which calls for urgent collective action to halt and reverse biodiversity loss globally (3). At the same time, biodiversity loss is experienced locally and often disproportionately. This is particularly evident in the Greater Caribbean, where societies depend heavily on marine and coastal ecosystems for livelihoods, tourism, food security, and protection from natural hazards (4). The 2026 theme, “Acting locally for global impact,” therefore highlights the importance of local populations, Indigenous knowledge systems, and regional cooperation in biodiversity governance.

Biodiversity: A Global and Local Issue

Biodiversity loss transcends national borders because ecological processes are deeply interconnected. Biodiversity supports climate regulation, freshwater systems, soil fertility, pollination, and ecological resilience (5). These functions are essential because they sustain food production, water security, disaster resilience, public health, and the environmental conditions upon which economies and human societies depend. Forests, wetlands, mangroves, and other ecosystems contribute to carbon storage, water purification, and protection against environmental hazards while sustaining social and economic systems (2). The drivers of biodiversity loss are equally global in nature. Climate change, pollution, unsustainable consumption patterns, land-use change, and ecological deterioration affect habitats across borders and regions (2). Plastic pollution, for example, circulates through interconnected ocean currents far beyond its point of origin, while greenhouse

gas emissions and deforestation influence global climate patterns and ecological stability (5). Biodiversity loss therefore requires coordinated international cooperation and shared environmental governance.

However, the impacts of biodiversity loss are felt directly at the local level. Caribbean coastal populations rely heavily on coral reefs, mangroves, fisheries, forests, and wetlands for livelihoods and economic stability (4). Ecological degradation can therefore lead to declining fish stocks, coastal erosion, freshwater scarcity, and increased vulnerability to disasters. These impacts threaten several Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger), SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land). Small Island Developing States (SIDS) are particularly vulnerable due to climate exposure, limited land area, and high dependence on natural resources despite contributing minimally to global greenhouse gas emissions (6). Caribbean islands also possess exceptionally high levels of endemism, meaning that many species found within the region exist nowhere else on Earth (7). Biodiversity loss therefore threatens not only ecosystems, but also local cultures, food systems, and social resilience.

Why Local Action Matters

Each ecosystem is shaped not only by environmental conditions, but also by historical, political, and socio-economic realities that influence how biodiversity is used and governed. Conservation approaches that ignore local land relations, resource dependence, or historical inequalities may deepen social vulnerabilities or fail to achieve long-term ecological outcomes (2). This is particularly relevant in postcolonial regions such as the Caribbean, where environmental governance is closely tied to questions of sovereignty, development, and unequal exposure to ecological degradation.

International institutions increasingly recognize that biodiversity conservation cannot rely solely on top-down or technocratic approaches. Indigenous and traditional ecological knowledge systems often include detailed understandings of seasonal cycles, species behaviour, sustainable harvesting practices, and ecosystem management developed over generations (8). UNESCO recognizes Indigenous and local knowledge in the Caribbean as essential for biodiversity conservation, climate resilience, and sustainable ecosystem management, particularly in the context of Small Island Developing States and local adaptation strategies (9).

Simultaneously, biodiversity governance is closely linked to environmental justice and rights-based approaches to development. Tensions may emerge between top-down conservation frameworks and bottom-up approaches rooted in community participation and territorial self-determination. International organizations increasingly warn against “green grabbing,” whereby land is appropriated in the name of conservation without adequately considering local rights and livelihoods (10). Effective biodiversity governance therefore requires participatory approaches that strengthen local agency and community-led environmental stewardship.

Caribbean Examples of Local Agency

Across the Caribbean and Latin America, local populations demonstrate how biodiversity conservation can emerge through long-standing relationships between human societies and ecosystems. Garifuna communities along the Caribbean coasts of Belize, Honduras, Guatemala, and Nicaragua have traditionally practiced cassava cultivation, small-scale fishing, canoe-building, and mangrove-based coastal livelihoods closely adapted to local ecological cycles and marine environments (11). Their knowledge systems are directly tied to the sustainable use of coastal and marine ecosystems.

In Colombia, Afro-descendant maroon and Palenque communities have historically relied on

collective land management systems, diversified agroforestry, and forest-based livelihood practices that contribute to biodiversity conservation and ecosystem preservation (12). Regional initiatives have also highlighted the role of Afro-descendant territories in maintaining forest cover and reducing deforestation through community-based environmental stewardship (13)(14).

In the Caribbean, Indigenous Taíno agricultural knowledge systems contributed to agroecological practices centred on cassava cultivation, polyculture farming, and soil management adapted to tropical island environments. Archaeobotanical research demonstrates that precolonial Caribbean societies developed resilient food production systems based on ecological adaptation and low-intensity land use rather than large-scale environmental transformation (15). These examples demonstrate that biodiversity conservation is often strengthened through locally grounded knowledge systems, sustainable resource management practices, and long-term relationships between communities and their environments.

Biodiversity governance may generate tensions when conservation policies do not fully align with the territorial relationships, spiritual practices, and ecological systems of Indigenous populations. Tayrona National Natural Park in Colombia forms part of the ancestral territory of the Kogui, Arhuaco, Kankuamo, and Wiwa peoples, who were displaced from parts of the coastal area following the park's establishment. However, the region remains spiritually and culturally central to their ancestral knowledge systems.

UNESCO recognizes these systems as intangible cultural heritage contributing to ecosystem protection through the preservation of sacred sites and the management of the "Black Line" (Línea Negra), a network of ecologically and spiritually significant territories extending from the mountains to the Caribbean coast (16). Indigenous authorities continue to conduct ceremonies and ritual practices intended to maintain environmental balance and prevent ecological degradation, while recent efforts have increasingly sought to involve Indigenous communities in the protection and management of the area in response to tourism pressures. This illustrates how conservation outcomes are often strengthened when Indigenous knowledge systems are meaningfully integrated into environmental management.

Linking Local and Global Challenges

Many local environmental crises originate from global economic and industrial systems. Pollution, climate change, and unsustainable resource extraction often disproportionately affect populations that contributed least to ecological degradation. Sargassum influxes illustrate this dynamic. According to GlobalHAB and GESAMP, massive sargassum blooms in the Atlantic are linked to interactions between climate variability, ocean circulation, and nutrient enrichment (17). These influxes affect fisheries, tourism, public health, and coastal ecosystems across the Caribbean.

The chlordecone contamination crisis in Martinique and Guadeloupe further demonstrates how biodiversity loss and ecological degradation are linked to unequal environmental governance and global systems of environmental evaluation shaped by political and economic asymmetries. Chlordecone, a pesticide used extensively in banana plantations, contaminated soils, rivers, groundwater, and coastal ecosystems for decades (18). Although the substance had already been banned in the United States and mainland France due to its toxicity, exemptions allowed its continued use in Martinique and Guadeloupe, illustrating how postcolonial and peripheral territories may be subjected to unequal environmental protections within global agricultural and economic systems. Scientific studies associated exposure with increased risks of prostate cancer, endocrine disruption, and developmental effects (18). The resulting degradation of marine and terrestrial biodiversity also affected fisheries, ecosystem services, coastal food systems, and local livelihoods, demonstrating how environmental degradation produces long-term social, economic, and public

health consequences for local populations. At the same time, the chlordecone crisis has also generated strong local mobilization around environmental justice, ecological restoration, public health advocacy, and the protection of local ecosystems, illustrating the importance of locally grounded responses to globally structured environmental inequalities. Ecological degradation also extends beyond national borders, as disruptions affecting one ecosystem may spread across interconnected marine environments and regional food chains. The lionfish invasion in the Caribbean represents one example of a transboundary ecological crisis, as this invasive species threatens native reef biodiversity, alters ecological balance, and affects fisheries throughout the region (19). In response, local initiatives—including fishing campaigns, public awareness efforts, and the promotion of lionfish consumption—have been combined with broader regional coordination and monitoring mechanisms, illustrating how locally driven actions can contribute to addressing wider regional and global environmental challenges.

ACS Action and Regional Cooperation

The work of the Association of Caribbean States (ACS) reflects the principle that biodiversity conservation in the Greater Caribbean requires both regional coordination and locally grounded action. Through its Directorate for Disaster Risk Reduction, Sustainable Tourism, Caribbean Sea and the Environment (DDTCE), the ACS approaches biodiversity not only as an environmental issue, but also as a question of climate resilience, disaster risk reduction, sustainable livelihoods, and regional cooperation. This perspective is reflected in mechanisms such as the Caribbean Sea Commission (CSC), which promotes the Caribbean Sea as a shared patrimony whose ecological protection is inseparable from the social and economic well-being of Caribbean populations. This approach was further reflected during the ACS side event at COP16 of the Convention on Biological Diversity, titled “Preserving the Biodiversity of the Greater Caribbean: Social Actors United Against Coastal Erosion,” which emphasized mangrove restoration, coastal resilience, biodiversity conservation, blue carbon, and the role of Indigenous peoples, Afro-descendant communities, and civil society in protecting coastal ecosystems through locally grounded and community-based approaches. Similarly, the establishment of the Sargassum Sub-Commission (SSC) recognizes that transboundary environmental challenges such as sargassum influxes cannot be addressed through isolated national responses alone. Regional monitoring systems, scientific cooperation, and shared governance mechanisms should be combined with local adaptation strategies and community-level realities. ACS initiatives in coral reef restoration, sustainable tourism, sargassum monitoring and early warning systems, and South–South cooperation further demonstrate how biodiversity governance can connect international and regional environmental frameworks with practical regional and local realities while advancing broader commitments under the Convention on Biological Diversity (CBD), the Kunming–Montreal Global Biodiversity Framework, the Cartagena Convention and SPAW Protocol, the Sendai Framework, the Declaration of Montería and the Paris Agreement.

The Designation of the Caribbean Sea as a Special Area in the context of Sustainable Development reflects the recognition of the ecological, economic, and strategic importance of the Caribbean Sea to the Greater Caribbean Region. In the face of growing pressures from climate change, pollution, and biodiversity loss, the initiative highlights the need for stronger international cooperation and coordinated regional governance to protect the Caribbean Sea as a shared patrimony of the Greater Caribbean. In this context, the work of the CSC—including advancing the designation process, and strengthening of its technical mechanisms. demonstrates the importance of coordinated regional action to support sustainable marine governance.

Conclusion

Protecting biodiversity requires both global cooperation and strong local action. Ecological systems sustain climate stability, economies, public health, food systems, and cultural identity, yet

biodiversity loss continues to accelerate due to climate change, pollution, unsustainable production patterns, and ecological degradation. The Caribbean demonstrates both the vulnerability of biodiversity-rich regions and the importance of community-based and regionally coordinated responses. From coral reef restoration and sargassum management to Indigenous ecological knowledge and sustainable fisheries, local actions can generate broader environmental benefits when supported through equitable governance and international cooperation. The International Day for Biological Diversity therefore serves as a reminder that environmental sustainability ultimately depends upon protecting the ecosystems where people live, work, and interact with nature every day.

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