

# NATURE-BASED SOLUTIONS

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## Five opportunities to strengthen nature-based climate adaptation for people, land and oceans

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Statement of the [Synergies of Planetary Health Research Initiative](#) | Dahdaleh Institute for Global Health Research | York University | Canada

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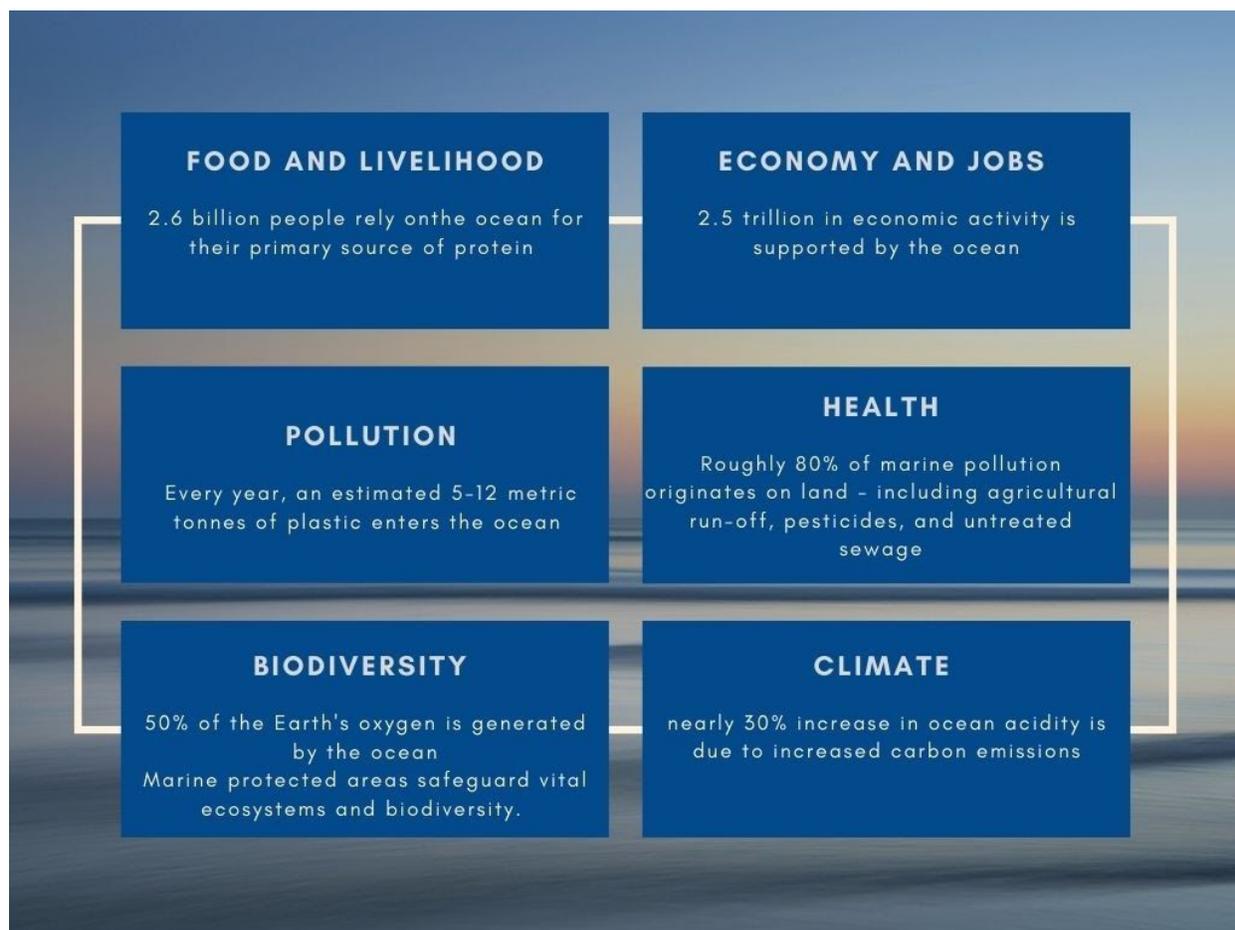
**If informed by sound ecology science and the needs of communities, nature-based solutions are invaluable assets to build resilience against the compounding impacts of climate change and biodiversity loss. Nature-based solutions hold promise in supporting coastal and marine ecosystems, and delivering simultaneous benefits for human culture, health, and well-being.**

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Nature-based solutions (NbS) are recognized for their potential to deliver simultaneous benefits for environmental and social wellbeing, and contribute to the realization of the United Nations 2030 Agenda for Sustainable Development. Encompassing a broad range of actions, nature-based solutions involve supporting and working with nature to contribute to environmental and social goals. Climate adaptation stands to benefit from nature-based solutions. The diversity of NbS presents many opportunities to boost climate adaptation at multiple scales: on land, with focus on land use, agriculture, forests, freshwater, wetlands, and drylands, in cities with a focus on urban renaturing initiatives, green corridors, green buildings, and natural infrastructure. Of particular weight is nature-based adaptation in marine and coastal zones. Their potential for adaptation and building long-lasting resilience make them indispensable for accelerating global adaptation in ways that bridge land and oceans.

Many coastal communities are experiencing the impacts of a rapidly changing climate including sea level rise, ocean acidification, high concentrations of pollution, increasing intensity and frequency of storms, coastal erosion, and decline in marine biodiversity. Climate impacts are felt unevenly, and coastal communities around the world are acutely and disproportionately vulnerable. These factors, along with the circumstances of the ongoing COVID-19 pandemic, underscore the importance of marine and coastal social-ecological systems for adaptation.





Sources: adapted from [International Alliance to Combat Ocean Acidification: SDG 14 | UNDESA; The Sustainable Development Goals Report 2020](#).

Natural marine and coastal systems can regenerate and help communities build long-lasting resilience with opportunities for sustainable practices. Their restorative capacity make them particularly beneficial for sustainable development synergies linking SDG 14 to Goals 2; 3; 11; 13; and 15. If informed by sound ecology science and the needs of communities, nature-based solutions are invaluable assets against the compounding impacts of climate change and biodiversity loss on lives, livelihood, and health.

Time is running out. Now is the moment to act. Transforming our relationship with nature and with one another is the collective duty of our generation. We see five opportunities to accelerate climate adaptation with nature-based solutions linking actions in oceans and coastal zones to actions on land, forests, coastal communities and cities, with benefits to social and natural systems.

### Five opportunities to strengthen nature-based adaptation for people, land and oceans

**Opportunity 1: Build nature-based adaptation initiatives on sound ecology science and meaningful participatory action by stakeholders and local communities.** It is imperative to move beyond incrementalist strategies toward long-lasting transformative action that includes local participation. Actions should respond to hazards in vulnerable areas, support local culture and livelihood, and maximize co-benefits that help restore biodiversity and improve human health. Actions must include principles, values, and practices of Indigenous and locally-situated knowledges.

**Opportunity 2: Strengthen collaboration between governments, subnational actors and non-state actors.** Civil society organizations, businesses, cities can contribute to boosting adaptive capacity and resilience. Collaborative interactions vary depending on the type and site of nature-based solutions. Stronger collaboration can be supported by high-level technical assessments and regionally focused activities.

**Opportunity 3: Boost regional nature-based climate adaptation initiatives.** Regionally focused collaborative platforms can help strengthen climate adaptation actions in biologically rich coastal regions, supporting local initiatives. Regional Climate Weeks provide a space for showcasing groundbreaking initiatives. Programs such as Africa Adaptation Acceleration Program help strengthen adaptation and resilience initiatives.

**Opportunity 4: Enhance transparency through tracking nature-based solutions for adaptation and resilience.** Data collection must track progress in terms of outputs, including environmental and social impact, and tangible impacts to local communities. Compatible tracking methodologies for climate, biodiversity, and health can help boost co-benefits and minimize trade-offs. Such methodologies can help identify data and knowledge gaps.

**Opportunity 5: Engage nature-based adaptation initiatives for co-creation of knowledge.** Partnerships with learning institutions can provide powerful tools for open, inclusive, and participatory dialogues for co-creation of knowledge, sharing of experiences, challenges, and best-practices. These co-creative learning spaces can help appreciate the plurality of adaptation initiatives and contribute to collective knowledge systems.

## Who we are

The **Synergies of Planetary Health Research Initiative** at the Dahdaleh Institute for Global Health Research is a partnership between researchers at York University, the German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE), Climate Cooperative Initiatives Database (C-CID), Global Center on Adaptation (GCA), and the University of São Paulo. We partner to develop tracking methodologies to assess progress of nature-based actions linking climate, biodiversity, and health, with a commitment to advancing evidence-based critical approaches for equitable and effective transformation by 2030.

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