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#### Overview

Despite some improvements over the last decade, many indicators of planetary health are headed in the wrong direction. Environmental threats from climate change, biodiversity loss, chemical pollution, and pressures on forests, land, oceans, and wildlife are undermining human development, livelihoods, and social justice.

- The loss of **biodiversity** and its associated ecosystems services threatens human well-being.
- The **oceans** are under increasing threat from **climate** change and associated acidification, loss of coral reefs, overfishing, and pollution.
- Freshwater systems are being depleted rapidly, threatening livelihoods and triggering conflicts.
- Global forest loss and possible tipping points in the Amazon can trigger unexpected and irreversible global damage to the environment.1
- In addition, hazardous chemicals remain a significant threat to human health, ecosystems, and biodiversity.

At the same time, the world still faces one of the greatest health and economic threats in a generation: the COVID-19 pandemic. These challenges are a stark reminder that the well-being of humanity is dependent on a healthy planet. The systemic nature of environmental challenges also calls for solutions to be integrated. To that end, the Global Environment Facility (GEF) anchors its overall approach on interdependency between people and the planet. This interdependency is key to ensuring that GEF investments are targeted toward tackling the breakdown in food, energy, urban, health, and natural systems that underpin human development. The GEF is therefore well-placed to harness its comparative advantage as "integrator" across multiple dimensions. The eighth replenishment cycle from 2022-2026 (GEF-8) will support transformative change to economic systems to address the risk of emerging diseases and pandemics.

#### A Pathway to Transformative Change for Blue and Green Recovery

GEF-8 focuses on integration for both impact and scale, consistent with global aspirations to seek bold results by 2030 and beyond (Figure 1). By integrating actions across sectors, focal areas, or drivers, it can address drivers of environmental degradation at global or regional scales; avoid leakage and promote policy coherence; and work across scales and sectors. Transformative investments will promote greater private sector engagement, as well as innovations and measured risks for higher returns. Ultimately, this approach will strengthen resilience in the face of uncertainty and build economic systems and financing to sustain impact. In this way, we can help create a Healthy Planet for Healthy People.

<sup>1</sup> https://advances.sciencemag.org/content/5/12/eaba2949

### GLOBAL RESPONSES AND COMMITMENTS

to seek bold results by 2030 and beyond

Commitments by countries representing  $\sim$ 45% of the world's emissions to achieve carbon neutrality by 2050 Sustainably manage 100% of the **ocean** area under national jurisdiction by 2025

Commitment to prevent, halt and reverse the degradation of ecosystems - 350 million hectares of degraded landscapes into restoration

High ambition coalition commitment to bring 30% of land and oceans under protection

Phase out POPs controlled by the Stockholm Convention with time bound phase out dates during the period 2025 -2036

Develop the Task Force on Naturerelated Financial **Disclosures** 

Phase out of mercury in products and industrial process by 2025

Figure 1. Global Responses and Commitments to Seek Bold Results by 2030 and Beyond

#### Healthy Planet, Healthy People

The Healthy Planet, Healthy People framework explicitly recognizes that human health and well-being depend on a healthy environment. It relies on linkages between biodiversity and ecosystem services with food security and human health; between abundant and clean freshwater and human health; maintenance of a stable and livable climate and human health: a clean and hazardous chemical-free environment and human health; and healthy oceans that can provide sustainable and resilient livelihoods and food security for people. With this in mind, the GEF has set the following goals through 2030:

- Scale up "green" and "blue" recovery actions in priority landscapes and seascapes through post-COVID-19 strategies by state and non-state actors.
- Provide incentives and improved policy options to promote innovations and behavior change for sustainability and resilience in target systems.

- Transform target systems by maintaining and enhancing natural capital and ecosystem services through Nature-based Solutions.
- Promote circularity in value/supply chains to increase efficiency and reduce or eliminate negative externalities like pollution.

GEF-8 will deploy funds from a record replenishment in 2022 to promote a green, blue, and resilient recovery. GEF-8 will invest in both integrated programming and specific focal areas. All told, 11 integrated programs will deliver global environmental benefits across multiple focal areas (Figure 2). At the same time, GEF-8 will continue to invest resources in single focal areas to support the goals of Multilateral Environmental Agreements (MEAs).

#### **GEF-8: HEALTHY PLANET, HEALTHY PEOPLE**

Unified action towards 2030 Goals and Commitments

#### **FOCAL AREAS**

Climate change mitigation

Land degradation

**International** 

Chemicals and

#### INTEGRATED PROGRAMS

Food Systems

Ecosystem Restoration

Sustainable Cities

Amazon, Congo, and Critical Forest Biomes

Circular Solutions to Plastic Pollution

Blue and Green Islands

Clean and Healthy Ocean

Greening Transportation Infrastructure Development

Net-Zero Nature-Positive Accelerator

Wildlife Conservation for Development

Elimination of Harmful Chemicals from Supply Chains

#### **GLOBAL PROGRAMS**

Mobilizing the Financial Sector for Environmental Goals through Blended **Finance** 

Community Action for Global Transformation -**Small Grants Program** and Beyond

#### **CROSS-CUTTING**

Circular economy • Nature-based solutions • Gender responsiveness • Resilience • Private sector engagement

Figure 2. The Healthy Planet, Healthy People Framework

#### **Integrated Programming**

GEF-8 will support integrated programs that can "move the needle" toward systems transformations. This framework positions the GEF well in its work to help developing countries pursue transformational change in key systems in line with national priorities. Collectively, the proposed 11 integrated programs address major drivers of environmental degradation and/or deliver multiple benefits that fall under the GEF's mandate. Many priorities also make use of increasingly more relevant global or regional platforms that are attracting a multitude of stakeholders and resources in response to political commitments.

#### Individual Focal Area Investments

Investments in specific focal areas respond to guidance from the different MEAs. The integrated programs will deliver substantial global benefits across the different focal areas, while some issues are best addressed through distinct investments in specific focal areas.

#### Global Programs

To rapidly scale up investment in the environment and meet the unfolding environmental crises and tipping points, global leaders, the private sector, the financial sector, and Civil Society Organizations (CSOs) are converging in their calls for action. The GEF Blended Finance program is an effective tool to help mobilize private investment but still represents a small portion of total global investment. Similarly, the Small Grants Programme (SGP) plays a critical role in mobilizing grassroots and community action for global transformation.



# Food Systems Integrated Program

#### The Issue

Food systems globally are a major driver of environmental degradation, including loss of forests and biodiversity, degradation of lands, depletion of freshwater resources, agricultural nutrient pollution, and greenhouse gas (GHG) emissions. Agriculture occupies about 37% of the world's total land area and agricultural production accounts for up to 80% of global deforestation; 70% of the terrestrial loss and 50% of the freshwater biodiversity loss; and 70% of global freshwater withdrawals. According to a new study, food systems emit about 20 metric gigatons of carbon dioxide equivalent (CO,e) per year (about 35% of global GHG emissions). The consequences of unsustainable food production extend into aquatic systems. This makes agriculture the largest source of water pollution, which then runs off into aquatic ecosystems and coastal areas.

Many factors contribute to the increased negative impacts in food systems:

- Rising global population and changes in consumption patterns toward higher protein diets resulting in more carbon-intensive agriculture that will further strain global land-use systems.
- Limited access of small-scale producers and agrienterprises to viable markets.
- High levels of food loss and waste and increased incidences of food safety, and animal and human health issues.

Increased energy intensity and ecological footprint associated with the lengthening and industrialization of food supply chains.

Tackling these challenges in isolation will not deliver the desired shift in food systems toward sustainability and resilience for people and the planet. Such transformational change calls for collective engagement by diverse actors involved in food systems. They need to move toward integrated solutions across entire supply chains, from supply (production) to consumption.

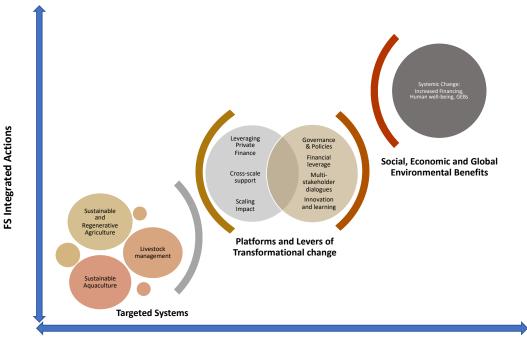
#### The Integrated Solution

Since its inception, the GEF has provided financing to countries for innovative projects seeking to tackle environmental degradation from agricultural production.

During the sixth and seventh replenishment cycles (GEF-6 and GEF-7), the GEF supported ongoing efforts to transform agriculture through investments in sustainable practices for safeguarding natural capital (land, soil, water, and biodiversity). GEF projects also promoted deforestation-free supply chains for globally important commodities, and reduction of negative externalities (GHG emissions and nutrient pollution).

The GEF-8 strategy will build on this experience. It will focus explicitly on sustainable, regenerative, nature-positive production systems. It will also support efficient value/supply chains covering food crops, commercial commodities, livestock, and aquaculture.

As its overall objective, the GEF-8 Food Systems Integrated Program seeks to catalyze the transformation to sustainable food systems that are nature-positive, resilient, and pollution-reduced. In so doing, the program aims to reduce environmental degradation and negative



**Framework for Transformative Change** 

Integrated diverse portfolio of practices to achieve sustainable food systems and impacts at scale

externalities in food production systems (food crops, commercial commodities, livestock, and aquaculture) and on the demand side across supply chains.

#### **Delivery Framework**

To maximize potential for transformative change, the program will operate at two levels-global and nationaland consider the four proposed "levers" (governance and policies, financial leverage, multi-stakeholder dialogues, and innovation and learning) for advancing systems transformation.

At the global level, the program will support:

- Leveraging private and financial sectors through encouraging concrete actions on both the production and demand sides toward use and expansion of sustainability standards and commitments to environmental and socially responsible sourcing.
- Catalyzing access to knowledge, technical expertise, and capacity development on issues that represent common challenges across multiple countries or specific geographical regions.
- Catalyzing new opportunities across spatial (landscapes) or vertical (supply chain) dimensions to help maximize scale potential for impact beyond national boundaries.

At the country level, and depending on the context, there are three areas of interventions:

Creating an enabling environment to shift toward sustainable and regenerative food production sustainability through a diversity of approaches.

- Reducing livestock's impact on the environment and contribution to zoonotic spillover and supporting production of alternative protein sources.
- Expanding investment in sustainable aquaculture management that is explicitly linked to land-based practices impacting freshwater and coastal marine ecosystems.

#### **Expected Impacts**

A more diverse portfolio of practices will be key in achieving sustainable food systems. This will include implementing practices that shift food production to least emission-intensive, sequester carbon, and adopt diet shifts. It will also embrace new-horizon technologies supported by improvements in countries' governance, political commitment and technical assistance, and innovative financial mechanisms. As a result, the program will generate global environmental benefits for climate change mitigation, biodiversity conservation, land degradation and water resources, and contribute to food security, livelihood and climate resilience, and better health and nutrition.

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<sup>1</sup> Ciniro Costa Jr et al. Roadmap for achieving net-zero emissions in global food systems by 2050 Nature Scientific Reports 2022



# The Amazon, Congo, and Critical Forest Biomes Integrated Program

#### The Issue

In the tropics, primary forests, or Intact Forest Landscapes (IFLs),¹ store more carbon than any other forests. It is estimated that forest ecosystems soak up to a third of anthropogenic greenhouse gas emissions, 84% coming from old and primary forests.² These forests are also irreplaceable in terms of biodiversity and are critical for other ecosystem services (water), and Indigenous Peoples and local communities. The conservation and sustainable management of the remaining IFLs has become crucial to combat global environmental degradation before it is too late. IFLs are also the cheapest solution to the twin crisis of climate change and biodiversity loss.

Remaining IFLs comprise only 20% of tropical forest area. Only 22% of intact forests are found in Protected Area Categories.<sup>3</sup> Primary forests in the most extended tropical biomes continue to be lost or degraded at an alarming rate. In addition, the continuation of the carbon sink's role of IFLs is not guaranteed due to climate change and deforestation.

The drivers of deforestation and forest degradation are well known. Some depend on local specificities, including agriculture, logging, mining, and infrastructure development. These drivers are fueled by poverty, policy incoherence, weak capacities, or industrial businesses.

#### The Integrated Solution

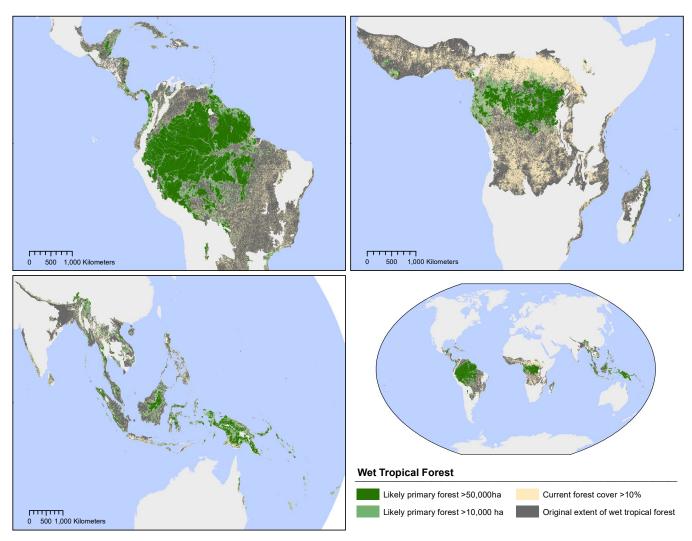
The Amazon, Congo, and Critical Forest Biomes Integrated Program aims to maintain the integrity of globally important and critical tropical primary forests. This, in turn, will maximize multiple global environment benefits, notably related to carbon and biodiversity.

The Amazon and the Congo Basin are the two largest blocks of tropical forests in the world.<sup>4</sup> These two basins are globally critical for biodiversity and carbon storage. They provide livelihoods and subsistence to communities that rely on forests and agriculture for their survival

Beyond the large intact biomes, some regions are also home to smaller patches of primary forests. These are vital as biodiversity refugia and can serve as a comerstone for ecological restoration efforts in fragmented landscapes. The Indo-Malaya region, Papua New Guinea, Mesoamerica, and the Guinean forests of West Africa include such vital primary forests and are therefore also targeted by the program.

#### **Expected Impacts**

At the global level, the program will contribute to better conservation of primary forests, providing information and visibility of IFLs in the climate and biodiversity agendas. It will give particular attention to their definition, mapping, sustainable management, and financing. Several platforms should be targeted to catalyze the engagement of multiple stakeholders at global, regional, national, and local levels. This would enable the needed changes in governance models, policies, financial frameworks, information, and social systems. Beyond governments, the targeted stakeholders should include the private sector and various platforms involved in forest protection, sustainable use, and finance.



Map by Hugh S. & Mackey B. (Griffith University), from various sources: Turubanova et al. (2013), Potapov et al. (2017) & FAO Global Ecological Zones (2012).

At the sub-regional level, countries will be invited to work together to increase and strengthen the protection and governance of IFLs. They will tackle the drivers of deforestation at the landscape and jurisdictional levels. This could include, for instance, developing land use planning instruments at various levels and finding innovative ways to promote integration. Beyond the establishment and improved management of protected areas, the program will consider other effective area-based conservation measures.

Countries will have the opportunity to develop Payment for Ecosystem Services (PES), corridors, and coordinated landscape management to improve connectivity at the transboundary or regional level.

The roles and empowerment of Indigenous Peoples and local communities, as well as marginalized groups including women, will be central. This will require robust safeguard systems.

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# Wildlife Conservation for Development Integrated Program

#### The Issue

The COVID-19 pandemic has highlighted the interconnectedness of people and nature via zoonotic disease spillover. It has shown the vulnerability of economies and protected areas dependent on the international tourism market. And it has made obvious the value of diversification, resilience, and an integrated approach to the health of ecosystems, health of wildlife, livestock, and well-being of people.

Wildlife crime continues to be a lucrative global business, with high demand driving high prices, and with low risk of apprehension. Nearly 6,000 species of fauna and flora have been seized between 1999 and 2018, with nearly every country in the world playing a role in the illegal wildlife trade. The Red List Index shows there has been no reduction in the rate at which species are moving toward extinctions because of human impacts. Indeed, threats to species and the Key Biodiversity Areas and wider landscapes and seascapes they depend upon are growing. A complex set of drivers including land/sea use changes, climate change, overexploitation of resources, pollution, and invasive alien species are behind these declines.

#### An Integrated Solution

The Wildlife Conservation for Development Integrated Program (WCD IP) will support countries to secure terrestrial, freshwater, and marine wildlife populations and key landscapes. An integrated approach to combat the illegal and high-risk consumption and trade will address key elements of the supply chain (poaching, trafficking, and demand). It will also support strategies for the coexistence of human and wildlife populations through landscape-level conservation and by managing humanwildlife conflict. At the same time, it will incorporate a new focus on zoonotic spillover risk reduction by promoting control and proper regulation of wildlife trade and unsustainable wildlife exploitation for non-trade purposes. The WCD IP will work across the human health-wildlife health nexus, providing participating countries with support and incentive to explicitly address this critical element of the Healthy Planet, Healthy People framework.

The program aims to conserve wildlife and landscapes by transforming the drivers of species loss and ensuring that countries and communities are benefiting from these natural assets. Achieving this requires an approach with both global and national dimensions, with regional coordination and engagement. The IP will directly address wildlife-health system links and support innovative cross-sectoral partnerships.

The WCD IP builds on GEF's experience with the Global Wildlife Program and will focus on three components.

First, *Human Wildlife Coexistence* will support countries to conserve the extent, integrity and connectivity of key wildlife landscapes; deploy actions and policies to reduce zoonotic spillover; and avoid and mitigate human wildlife conflict.







Second, Illegal and High-Risk Wildlife Trade takes a supply chain approach to curbing poaching, disrupting trafficking, and reducing demand for illegal, unsustainable and high zoonotic-risk wildlife within and between countries. Third, Wildlife for Prosperity strives to ensure that local communities and governments value, invest-in and benefit from wildlife and habitat conservation including the recovery of nature-based tourism, landscape restoration and diversification of sustainable livelihoods and private sector engagement for building sustainable wildlife-based economies. At the same time, it will broaden attention to capture potential zoonotic spillover risks at the human-animal-ecosystem interface. A range of aligned interventions will work in globally significant wildlife habitats, across illegal supply chains, and in close partnership with local communities and multiple sectors. In so doing, the program will allow countries to achieve transformative change through sustainable management and conservation of terrestrial, coastal, and marine wildlife and ecosystems. As such, it will deliver integrated impacts for biodiversity, land degradation, climate change, and local communities.

The global program will include targeted activities in challenging areas for national projects. These include: i) international trafficking and transboundary issues; ii) behavior change for reducing consumer demand for illegal or unsustainable wildlife (prioritizing high-zoonotic risk and nationally and internationally illegally traded and consumed wildlife); iii) support for One Health approaches to reducing zoonotic spillover risks; and iv) global and regional donor coordination and knowledge management, with emphasis in South-South collaboration.

The three WCD IP components for national projects will work together, reinforcing each other with support of a global platform and targeted regional coordination and engagement. At the same time, they will consider compliance with international obligations.

WCD IP will consist of a set of national projects that will work across the IP components depending on the in-country conditions and national priorities. The platform will work at a global, regional, or transnational level. It will include a set-aside grant window to support social and behavioral sciences approaches to demand reduction for internationally trafficked and high-risk species. Such efforts to change behavior in domestic markets should be mainstreamed in national projects as well.

#### **Expected Impacts**

The GEF-8 Wildlife Conservation for Development Integrated Program is designed to achieve results across multiple sectors. This includes the conservation of globally important biodiversity (species and landscape conservation and sustainable use); land degradation (restoration of key wildlife habitats); climate change (greenhouse gas avoidance through habitat conservation); and human-wildlife health (reduce risk of zoonotic spillover from wildlife into humans, livestock or domestic animals). The program will generate the following direct global environmental benefits, (among others):

- 17.85 million hectares (ha) of terrestrial protected areas created/under improved management
- 157,000 ha of area of land restored
- 13.65 million ha of landscapes under improved management
- 44 million metric tons of carbon dioxide equivalent (Mt CO,e) GHG mitigated

The WCD IP will also explore opportunities to engage new investor groups/asset classes to support innovative financial solutions and work with the financial sector to curb wildlife trafficking. For the development of small- and medium-sized enterprises, there is also the possibility of blended finance or outside sources of concessional finance, and grant funding for technical assistance. The private sector commitments to biodiversity, climate change mitigation and adaptation, land restoration, and social equity represent further opportunities for channeling resources to target protected areas/landscapes and diversified livelihood activities. The GEF's participation in relevant multi-stakeholder platforms and finance initiatives will be used to capitalize on these opportunities.

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# Blue and Green Islands Integrated Program

#### The Issue

Nowhere is the interconnection between nature and people's livelihoods and well-being more obvious than in Small Island Developing States (SIDS). Countries worldwide are faced with accelerating change and environmental challenges. However, for SIDS, these challenges tend to be more intense and rapidly felt. They are physically small, geographically isolated and remote from international markets, with small economies that rely on a limited resource base, including unique biodiversity. SIDS are also highly vulnerable to the results of a changing climate. This includes sea level rise, more frequent and severe tropical storms, and the loss of coral reefs.

Around the world, the value of nature for the well-being of societies is often not understood and incorporated into decision-making. This leads to decisions and policies that undermine long-term societal health. Cutting down a mangrove to build a hotel or shrimp farm, for example, means the loss of an important fish nursery and storm surge protector.

SIDS economies are visibly and directly dependent on ecosystem health through tourism, agriculture, and fisheries, and are vulnerable to natural disasters exacerbated by climate change. Thus, disconnects in understanding and policy action become even more problematic in SIDS; but there are also opportunities for transformational change by addressing this challenge.

#### The Integrated Solution

The Blue and Green Islands Integrated Program will support SIDS to value ecosystem services and incorporate them into decision making as a basis for protecting nature as the foundation of thriving and resilient societies. At the same time, the program will support the scaling up of Nature-based Solutions (NBS) on the ground and in the water in the tourism, food, and urban sectors. The global platform will provide key technical support and capacity building, support knowledge sharing, and build collaborative initiatives with the private sector and others.

Therefore, the program will work with countries to support integrated decision-making that incorporates the value of nature through methods such as ecosystem valuation and natural capital accounting. Building on this approach, SIDS are also uniquely positioned to pioneer NBS approaches to development and recovery. As part of the program, each country will choose a set of activities to implement based on national circumstances and priorities.

#### National projects will have two primary areas of work:

- Addressing cross-cutting upstream issues to create a coherent enabling environment such as accounting and valuing of ecosystems and domestic public and private sector resource mobilization
- Addressing landscape level challenges in one or more of three sectors through Nature-based Solutions.

#### **Potential Nature-based Solutions:**

**Tourism** — Conservation, sustainable use, and restoration of ecosystems; integrated sustainability planning and decision making for tourism development; protected areas management; engaging tourism enterprises in the care and restoration of nature; and coral reef insurance.



Food (agriculture and fisheries) — Support for farmers and fishers to move toward sustainable practices; maintaining, improving, and restoring agro-ecosystems; regenerative agriculture and integrated pest management to reduce agrochemical use; promoting NBS to curb sources of land-based pollutants, including persistent organic pollutants; building robust and sustainable supply chains and strengthening producer organizations; and improving community-based or commercial fisheries management, aquaculture, and/or protected area management.

**Urban** — Innovative NBS to wastewater management, water security, urban flooding, renewable energy, and/ or solid waste management; and restoration of degraded productive landscapes or conservation of natural areas in peri-urban and rural areas to improve the ecosystem services they provide in urban areas.

**Expected Impacts** 

The **Global Coordination** function of the program will provide technical support and national-level capacity for enabling environment interventions; support learning, knowledge exchange and collaboration; coordinate and leverage external funding opportunities for impact at scale across multiple benefits; and meaningfully engage the local and international private sectors for innovative NBS. Individual SIDS may lack the scale to address certain issues or sectors that threaten the global environment and the global platform will seek to make significant progress in one or more of these areas.

Often described as large ocean, small island states, the SIDS manage 30% of the world's territorial oceans, including many areas of high biodiversity and carbon value. With just 3% of the Earth's land surface, SIDS are home to 20% of all plants, birds, and reptiles. By supporting countries to bring the value of nature into planning and policy and implementing NBS, the program will protect unique biodiversity, mitigate and adapt to climate change, and lead in demonstrating pathways for a Healthy Planet and Healthy People.

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# Eliminating Hazardous Chemicals from Supply Chains Integrated Program

#### The Issue

Fashion and construction are among the top three economic sectors that contribute significantly through their supply chains to pollution, greenhouse gas (GHG) emissions, land degradation, water pollution, and threats to biodiversity. Fashion, for example, contributes more GHG emissions than all global transport, including air travel. For its part, construction contributes 39% of global GHG emissions, and contributes significantly to water pollution, land degradation, biodiversity loss, and chemicals pollution.

Previous attempts to green both sectors have made little progress. A more circular supply chain can only be achieved if the sectors are free of harmful chemicals that prevent materials recovery, recycling, etc. Such an approach also ensures technologies and practices to green these supply chains will eliminate harmful chemicals in addition to promoting carbon neutrality and nature-positive actions.

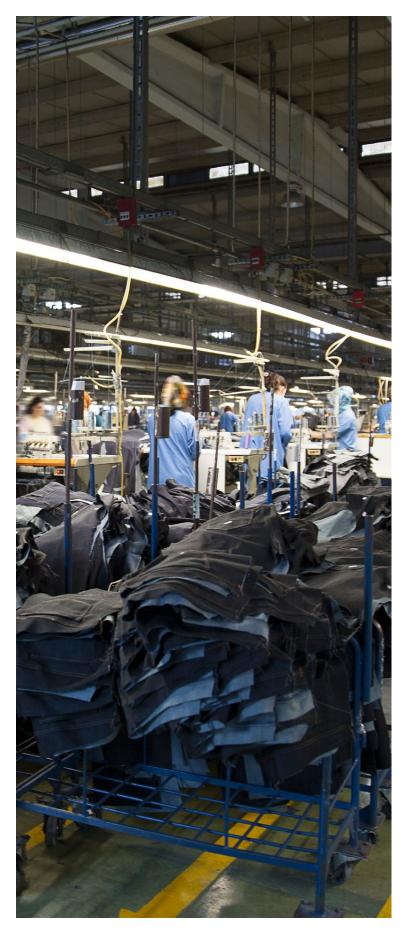
#### The Integrated Solution

The Supply Chain Integrated Program seeks to address environmental degradation from globally significant supply chains through the lens of chemicals. Ideally, it will be the catalyst for integrating actions across several environmental dimensions. The program aims to create clean, circular (as far as possible), regenerative, and transparent supply chains that drive innovations in new materials, methods, and policy.

The supply chains of fashion and construction supply chains are not necessarily related, but they have common activities that affect sustainability. The program will stimulate innovations in new materials, technologies, and practices and in tandem, it will create markets and demand for new materials in these supply chains. This will enable products and materials to be green by design.

The program will support institutional and policy changes to support market uptake, barrier removal, and access to finance. These changes will incentivize the flow of new materials into these supply chains. At the same time, it will reduce production of unsustainable materials and practices, so they do not end up in other supply chains.

The program will support strategic actions that unlock investment and innovation in the private and public sectors. In so doing, it will draw on work in green chemistry and waste management where GEF resources help bring new technologies and to commercial scale. The program complements will work with commercial finance, enabling entrepreneurs to access finance to create businesses that can supply new materials and products.



#### Coordination

The program would need to engage with multistakeholder platforms, engaging with the global private sector. This is especially true of brands, firms, and relevant sectors to secure offtake of new materials and facilitate access to these materials. It would also need to match with ongoing innovation platforms and identify additional areas to influence new materials, products, and practices. For example, it can bring these criteria into sourcing programs such as gold for the planetGOLD program.

Ideally, the coordination component will share and exchange knowledge and lessons from the program. It will also collect, synthesize, and disseminate best practices to child projects. In this way, it would ensure child projects are working efficiently.

The selection of child projects should consider several criteria. They should ignite imagination and innovation, surfacing technologies, processes, products, and materials that can replace unsustainable ones. All projects should ideally focus on unlocking resources from the private sector and public sector to drive sustainability.

#### **Expected Impacts**

The program has targets across several focal areas:

- Minimum Core Indicator Estimates:
- CI4 Area of landscapes under improved practices: 1 million hectares (Mha)
- CI6 GHG Mitigated: 6 million metric tons of carbon dioxide equvalent (CO,e)
- CI9 Reduction of chemicals of global concern and their waste: 25,000 metric tons
- CI10 Reduction of POPs to air: 246 grams of toxic equivalent (gTEQ)

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# **Ecosystem Restoration**Integrated Program

#### The Issue

An estimated 2 billion hectares (ha) of agricultural land, pasture, forest, and woodland are degraded globally, with negative impacts on food systems, ecosystem services, and habitats for wildlife. While restoration efforts are underway in many regions, degradation continues at a large scale. There has thus never been a more urgent need to arrest further degradation and to restore and heal ecosystems.

Ecosystem restoration is the process of assisting the recovery of ecosystem types and habitats that have been degraded, damaged, or destroyed. It encompasses a continuum of activities that contribute to protecting intact ecosystems and repairing degraded ecosystems. Restoration can range from rehabilitating and improving systems under human use to restoring disturbed natural ecosystems to their natural state and ensuring their conservation.

Restoration, a key nature-based solution, has both economic and environmental benefits. Restoration contributes to green recovery by stimulating investments, creating jobs primarily in rural areas, and helping to secure livelihoods of local communities. It generates ecological benefits by safeguarding ecosystem services, such as soil protection, pollination, nutrient cycling, and soil water-holding capacity. Such services are crucial for both short- and long-term agricultural productivity and food

security. In addition, restoration provides biodiversity benefits, including avoided species extinctions, as well as climate change mitigation benefits through carbon sequestration.

#### The Integrated Solution

The Ecosystem Restoration Integrated Program aligns with the vision of the UN Decade on Ecosystem Restoration and supports the global commitments toward restoration under the Multilateral Environmental Agreements (MEAs). As such, it mobilizes a diverse coalition of stakeholders from all relevant sectors, catalyzing finance, and fostering global cooperation.

The program aims to generate multiple environmental and socioeconomic benefits by applying integrated approaches to restore degraded ecosystems. It will focus on restoration of ecosystem types with a high potential to generate multiple benefits, including the following:

- Converted or degraded ecosystem types and habitats, such as wetlands; peatlands; headwaters and watersheds; estuaries; riverine forests; mangroves; coastal areas, including near-shore coral reefs and seagrass ecosystems; native woodlands; shrub and grasslands; ecological networks and corridors; and steppingstone habitats. It will use best practices for ecological restoration.
- Degraded natural forest landscapes, drylands, grasslands, and pastures. It will apply a range of best practices and cost-effective interventions such as natural regeneration and assisted natural regeneration to restore ecosystem functions and services.
- Degraded agro-ecosystems in mosaic landscapes with a high potential for multiple environmental benefits.



It will achieve this through investments in sustainable land management, including agro-silvo-pastoral models and agro-ecological diversification, and rangeland restoration

#### Approach

Conventional planning and policy decisions for natural resource management at landscape level are still siloed in individual ministries and discussed with different stakeholders ad hoc. The program will apply comprehensive integrated land-use planning, including spatial land-use planning. It will also promote cross-sectoral coordination between environment, agriculture, forestry, water, energy, tourism, transport, mining, and finance sectors. In this way, it will harmonize policies and financing streams.

The program will also engage with stakeholders more strategically. A programmatic approach will complement biophysical and technical interventions on the ground. Instruments focused on national policies, governance, institutional, financial, and local social structures will bring all relevant stakeholders together for transformational impact on reversing environmental degradation globally.

The lead agency of the program will provide technicaland science-based expertise, and support spatial land-use planning built on multi-stakeholder, cross-sectoral participatory processes. This will facilitate Indigenousand community-led restoration that fosters capacity of civil society organizations. It will design and deploy innovative financing solutions to sustain impact. Finally, it will conduct effective policy engagement to strengthen enabling conditions for restoration interventions.

As part of this approach, a global platform will deliver program-level objectives by guiding and supporting national child projects under the program in:

- Outreach and communication
- Knowledge generation and exchange
- Policy support
- Mobilization of finance
- Monitoring and evaluation

The program will work with and through existing platforms to create the global cooperation and synergies needed for transformational change and scaling, and enhanced impact.

#### **Expected Impacts**

The program provides a vehicle to meet many of the restoration targets that countries have set within their MEAs and other international commitments. This includes avoiding further degradation of land and ecosystems. Besides these indirect impacts, the program will generate the following direct global environmental benefits:

- 4.3 million ha under restoration
- 9.4 million ha under improved management
- 80 million metric tons of carbon dioxide equivalent (CO,e) sequestered/avoided
- One shared freshwater ecosystem under new/improved cooperative management

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### Sustainable Cities Integrated Program

#### The Issue

Cities are growing at an unprecedented scale and pace, accounting for nearly 70% of global greenhouse gas emissions. Rapid urban sprawl is driving degradation of land and loss of biodiversity. Meanwhile, unsustainable consumption is causing a rapid increase in solid and toxic waste and pollution in cities.

Unplanned urban growth affects both the environment and urban populations, leading to increased vulnerability to climate extremes of flooding, heat waves, and sea level rise. In addition, it increases inequality in cities. Vulnerable urban communities are the most affected by environmental degradation and other stressors such as the COVID-19 pandemic.

#### The Opportunity

By 2050, cities are expected to host two-thirds of the global population. Therefore, they will be key economic systems for transformative actions to address environmental degradation and achieve the global climate change, nature, and sustainability goals. As naturally integrated systems and strategic hubs for innovation in technology, policies, and business models, cities bring many effective entry points for sustainable investments that can deliver large-scale global environmental benefits. They are showing strong political leadership toward sustainability with city networks, multi-stakeholder

platforms and other urban actors playing a critical role in scaling up their ambitions. Further catalytic support to cities can drive green and equitable growth in cities, which is key for healthy people and a healthy planet.

#### The Integrated Solution

The Sustainable Cities Integrated Program aims to advance integrated and systems-based approaches toward building net-zero carbon, nature-positive, inclusive, and climate-resilient cities. It will also focus on urban priorities, including the reduction of chemicals and waste, plastics, and air pollution as key co-benefits.

The program will work with countries and cities on the following strategic entry points:

- Advancing integrated land use planning and governance to support institutional coordination at multiple levels, and catalyze integrated spatial approaches to scale up innovative sustainability solutions with strengthened collaboration between sectors.
- Integrating nature into urban development and regional planning, demonstrating urban Nature-based Solutions and supporting enabling policy and regulatory environment to bring nature into cities.
- 3. Decarbonizing the built environment by supporting development of plans, policies, and strategies to design and implement solutions to decarbonize urban infrastructure, including buildings, energy, waste management, water and transportation systems.
- 4. Adopting circular economy approaches through policies and physical infrastructure targeting strategic entry points such as building materials, water and waste management, urban food systems, plastics, and industries.

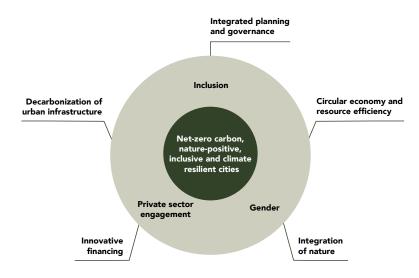


Figure 1: SC IP Key Entry Points

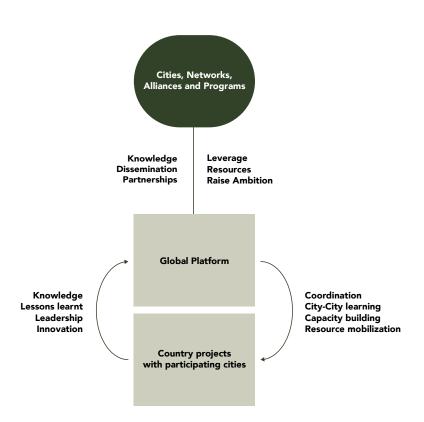


Figure 2: SC IP Implementation approach

1. Promoting innovative financing to increase flow of finance to cities to meet the sustainability financing gap, in collaboration with financial institutions, the private sector. and other institutional investors.

These entry points will be supported by cross-cutting priorities of i) inclusion and environmental justice; ii) gender-inclusive approaches; and iii) private sector engagement at the global, national, and local levels.

The program will seek to deliver transformative results through its two interlinked components:

- A global platform—to catalyze knowledge creation and city-to-city learning, promote innovation and strengthen multistakeholder partnerships.
- Country- and city-level interventions—to support cities and national governments in implementing integrated urban sustainability solutions in selected cities.

#### **Expected Impacts**

The program will enable cities in tackling key drivers of environmental degradation to deliver multiple global environmental benefits. This includes climate change mitigation and adaptation, biodiversity conservation, reduced land degradation, and reduction of chemicals and waste. Its support to cities will result in improved land use planning, enabling policies, accelerated investments in nature and decarbonization, and capacity building of urban institutions. It will promote integration of gender, health, and inclusion to ensure equitable distribution of environmental benefits. The program will create a space for diverse stakeholders to collaborate and co-create innovative and impactful urban sustainability solutions. These could range from governments, city networks, and financial institutions to civil society and the private sector

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# Net-Zero Nature-Positive Accelerator Integrated Program

#### The Issue

According to the IPCC Sixth Assessment Report, holding the global temperature increase to  $1.5^{\circ}$ C above preindustrial levels will require 45 percent  $CO_2$  emissions reductions by 2030 compared to 2010 levels, and reaching net-zero emission globally by 2050.

Countries need to roll out coherent strategies and operationalize investment pipelines that pursue deep decarbonization pathways. This will require holistic and cross-sectoral approaches, which are often hindered by fragmented or incoherent decision-making structures and slowed down by mis-aligned incentives and subsidies. Such integrated approach needs to be built upon the growing evidence showing that the twin threats of global biodiversity loss and climate change are inextricably linked. There is considerable scope and opportunity for harnessing synergies, and a strong need to minimize tradeoffs. With the urgency to tackle both threats toward achieving carbon neutral, nature-positive, and reduced pollution economies, we need to act now to support countries making informed decisions on how to the embark swiftly towards decarbonized economies, while protecting nature at the same time.

# The Net-Zero Nature-Positive Accelerator Integrated Program

The Net-Zero Nature-Positive (NZNP) Accelerator Integrated Program aims to accelerate the implementation nature-positive and net-zero pathways by investing in nature and new technologies. The program aims to push the ambition of national climate plans beyond the current levels and contribute to closing the gap between the expected combined impacts of adopted national policies and the well-below 2°C path enshrined in the Paris Agreement.

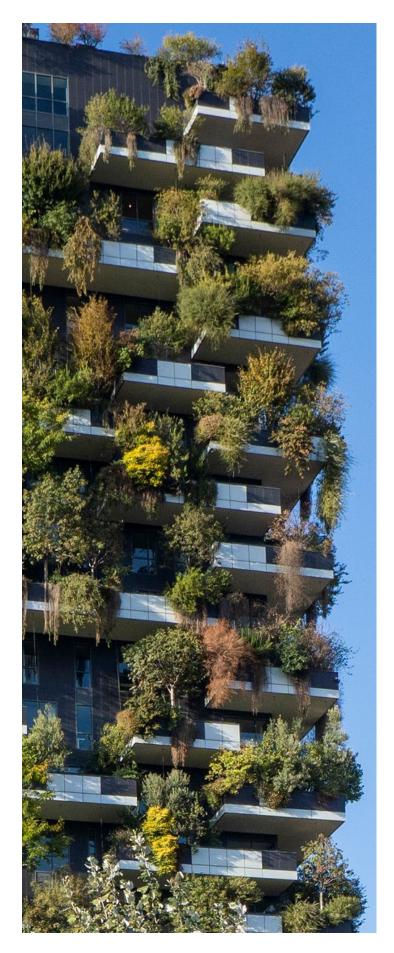
Supporting a whole-of-government approach, the program will help countries to prepare and implement long-term strategies that are consistent with the temperature goals of the Paris Agreement, translate them into short- and medium-term targets and with coherent and enforceable policies. It will then invest in pipeline of projects focusing on innovative climate technologies and nature-based solutions, to move swiftly from planning to implementation.

The program is one of the 11 Integrated Programs under GEF-8. It is expected to start implementation in the second half of 2023.

#### The Program Delivery Framework

Depending on the country context and readiness, specific objectives to be supported by the NZNP Accelerator Integrated Program will include the following:

- Support the adoption of net-zero strategies and policies that are coordinated with national biodiversity conservation and land degradation strategies and objectives.
- Contribute to the effective integration of the climate and biodiversity agendas at the national and global level.



- Invest in NZNP-aligned pipelines of projects that generate multiple global environmental benefits.
- Support the development of robust data systems to monitor progress towards NZNP targets.

The program will require integration at three levels: i) across sectors: requires a system approach and the participation of relevant line ministries; ii) across value chains; and iii) across governance: integrations across national and local governments, civil society as well as across the public and private sectors.

The NZNP Accelerator Integrated Program will prioritize countries with the highest level of political commitment to net-zero targets. It will also work closely with private sector coalitions to galvanize its engagement and increase likelihood of adoption of private sector commitments to NZNP targets.

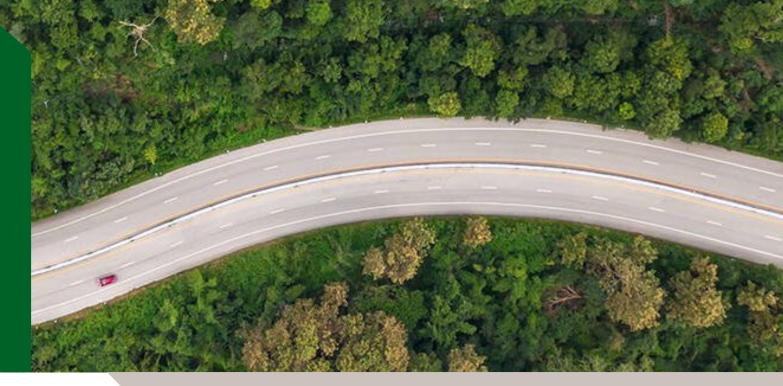
#### **Expected Impacts**

Decarbonization of economies while protecting nature and reducing pollution offer significant opportunities for shaping healthy environments and can contribute substantially to the post-pandemic economic recovery, including by supporting the alignment of domestic stimulus packages and international climate finance flows to the principles of the build back greener agenda.

By advancing the integrated approach, the NZNP Accelerator Integrated Program will complement the bottom-up processes to develop and implement Nationally Determined Contributions, with top-down actions that fully integrate biodiversity and land degradation neutrality in climate mitigation policies and investments. As a result, the program will contribute to generate multiple global environmental benefits and practical lessons beyond those created by programming solely within the GEF Focal Areas.

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# Greening Transportation Infrastructure Development Integrated Program

#### The Issue

Infrastructure development is essential to meet humanity's social and economic needs, including ramping up a global energy transition to meet net-zero targets. This is especially true in developing economies where millions of people continue to lack access to basic services like water, energy, transportation, and telecommunications. It has been estimated that \$95 trillion in new infrastructure is needed by 2040 alone to meet demand—twice the infrastructure that existed in 2012.<sup>1,2</sup> This level of investment will have profound social and environmental consequences, including biodiversity loss, deforestation, and greenhouse gas emissions.

Anticipated investments in transportation and energy sectors are expected to be particularly impactful. More than 25 million km of new roads are anticipated by 2050, 90% in developing countries.<sup>3</sup> New roads will drive further deforestation in the last remaining old-growth forests. This, in turn, will increase habitat fragmentation and loss of ecosystem connectivity, while elevating risks for zoonotic disease spillover.

There are two important drivers of these impacts. First, transportation infrastructure is based on an insufficiently holistic understanding of true investment risks and environmental costs and benefits. Second, decision makers are not realizing the full potential of nature-based infrastructure solutions.

While ecosystem services are increasingly valued, their benefits are rarely incorporated into infrastructure sector plans. This is because current cost-benefit analysis standards and practices do not sufficiently consider the true negative costs of built assets or the positive benefits of these solutions.

Without significant change in the status quo, additional infrastructure development investment in the coming decades will make it impossible to meet the goals of the UNFCCC, CBD, and UNCCD.

#### The Integrated Solution

The Greening Transportation Infrastructure Development Integrated Program aims to enable countries to develop portfolios of transportation infrastructure projects at national or land/seascape levels that build in sustainability from inception through:

- Avoiding placement of transportation infrastructure in globally important and particularly sensitive ecological areas, thus significantly reducing negative impacts to ecosystems from essential infrastructure development.
- Enabling countries to recognize ecological services that must be maintained to either serve infrastructure needs, such as free-flowing rivers that enable multimodal transport systems, or reduce risks to engineered infrastructure, such as forested slopes that protect roads from landslides and erosion.







Striking a balance between investment in new transportation infrastructure and maintaining existing assets to meet sustainable infrastructure service delivery requirements.

The program will achieve this by improving planning, regulatory, financial, and institutional and management frameworks geared to the differential needs of countries and landscapes. Important criteria that will be considered as part of these frameworks include whole life costs, holistic investment, net-zero, resilience, flexibility, and multi-use design. These framework elements are essential for a welloperating transportation infrastructure industry and more importantly for embedding sustainability into infrastructure operations.

#### **Expected Impacts**

The program seeks to ensure that transportation infrastructure projects will emphasize and produce biodiversity, avoided land degradation, and climate change mitigation benefits. It will do this by (i) avoiding placing infrastructure in critical ecosystems; (ii) restoring biodiversity around the right of way of a road; (iii) maintaining flows/connectivity for fluvial transport; and (iv) maintaining or enhancing wildlife crossings or other natural infrastructure to increase ecosystem connectivity and facilitate the movement of animals.

- Oxford Economics. 2017. Global Infrastructure Outlook. Global Infrastructure Hub. https://www.oxfordeconomics.com/recent-releases/ Global-Infrastructure-Outlook
- Bhattacharya, A., Oppenheim, J. & Stern, N. 2015. Driving Sustainable Development through Better Infrastructure: Key Elements of a Transformation Program. Brookings Institution, The New Climate Economy and Grantham Research Institute, Washington, DC, USA.
- 3 Alamgir M., M.J. Campbell, S. Sloan, M. Goosem, G. R. Clements, M.I. Mahmoud, W. F. Laurance. 2017. Economic, Socio-Political and Environmental Risks of Road Development in the Tropics. Curr Biol. 27(20):R1130-R1140.

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# Circular Solutions to Plastic Pollution Integrated Program

#### The Issue

Plastic production, consumption, and waste is expanding exponentially, affecting marine, freshwater, and terrestrial ecosystems and contributing to greenhouse gas (GHG) and hazardous chemical emissions with consequent implications for human health, economies, and social well-being around the world. Plastic production—from car tires to water bottles—has increased 9% since 1950, outpacing any other manufactured material. Most recently, during the COVID-19 pandemic, single-use plastic consumption and subsequent waste has further increased. Packaging (e.g. bags, lids, bottles, clamshells) is the primary use of plastic (30%) with single-use plastic constituting over half of plastic waste. 1,2 The food and beverage industry is a particular concern due to the high volume of single-use packaging. Nine out of 10 of the most common beach clean-up items are tied to the food and beverage sector.3 Meanwhile, the top brands tied to plastic pollution are associated with the food and beverage industry.<sup>4</sup>

Historically, action on plastic has focused on disposal (i.e. collection, recycling, waste-to-energy, incineration, landfill). However, eliminating plastic pollution requires stopping the flow of plastic at its source by controlling production and consumption. Such solutions require addressing the entire plastic value cycle: material engineering; product and process design; consumer use and behavior; and collection systems and recycling.

#### The Integrated Solution

The Circular Solutions to Plastic Pollution Integrated Program tackles plastic pollution using a circular economy approach. Packaging, particularly single-use related to the food and beverage sector, will be the priority since it is the main source of plastic waste in developing countries.

Interventions will cross the entire plastic value chain—from production to consumption to disposal. Such a holistic approach leverages the interlinkages across the processes and sectors contributing to plastic pollution. As plastic pollution efforts tend to focus on waste collection, recycling and clean-ups, the GEF will prioritize actions early in the plastic value chain, i.e. production and consumption. By aligning with existing waste management efforts, the program will address the full value chain.

The program emphasizes upstream measures to reduce plastic production and consumption, the engagement of the private sector, and single-use packaging in the food and beverage sectors. It has several objectives:

- Eliminate production and use of problematic and unnecessary plastic products (e.g. single-use plastic packaging) and phase out plastic products containing chemicals of concern, using green chemistry to create sustainable materials.
- Innovate for circularity through increased reusability, recyclability, and composability of products; innovate better reuse, refill, repair, remanufacturing, and recycling business models, including service as product; reengineer products toward materials made from recycled materials, are recyclable and are ocean-safe if they leak into the ocean; and promote innovative solutions such as reuseable to-go food container programs.



- Ensure products are actually reused or recycled by shifting consumer behavior, by improving waste collection and recycling, and by fostering markets for recycled material.
- Create cross-cutting enabling conditions by strengthening coordination along the plastic value chain, sharing best practices, and establishing transparent means of monitoring and evaluation.

The program will include global, regional, national and city-level projects. At the global scale, the program will pursue establishing metrics, benchmarks and standards; addressing the trade of plastic products and waste; advising businesses on moving toward circular practices through innovation; sharing best practices; and raising awareness of circular economy opportunities and the business case for adopting circular practices. At the regional, national and city levels, the program will tackle plastic pollution by working with governments on circular policies, with businesses to adopt circular practices, with financiers to invest in circular solutions, and with the general public to raise awareness and shift consumer behavior.

#### **Expected Impacts**

Reducing the production, consumption, and disposal of plastic products will reduce GHG emissions in support of the Paris Agreement. It will also reduce emissions of hazardous chemicals, including unintentional persistent organic pollutants (uPOPs), in support of the Stockholm Convention. In addition, reducing plastic waste from entering the environment will help maintain the health of ecosystems and the species affected by entanglement and ingestion. This, in turn, will support the Convention on Biological Diversity, and other relevant agreements.

The program will also contribute to socioeconomic co-benefits, including diversified livelihoods and economic growth. It will achieve these benefits through innovative, circular solutions; improved labor conditions for the informal sector; women's empowerment throughout

the value chain; and improved human health through potable water and uncontaminated food. Increased job opportunities are also expected from the business opportunities associated with zero waste solutions. At a global scale, such a system change is predicted to cut government costs by \$70 billion and save businesses \$1.3 trillion compared to a business-as-usual trajectory.

The program will generate the following direct global environmental benefits:

- 16 million mtCO2e GHG emissions mitigated
- 1,400 gTEQ POP emissions reduced
- 10,000 mt hazardous chemicals eliminated
- 1 shared water ecosystem under improved governance
- 1 https://www.unep.org/resources/report/mapping-global-plastics-val-ue-chain-and-plastics-losses-environment-particular
- 2 https://www.unep.org/interactive/beat-plastic-pollution/
- 3 https://oceanconservancy.org/wp-content/uploads/2019/09/Final-2019-ICC-Report\_EMBARGOED-UNTIL-9.3.19.pdf
- 4 https://www.breakfreefromplastic.org/globalbrandauditreport2020/

The Global Environment Facility (GEF) is a family of funds dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health. Its grants, blended financing, and policy support help developing countries address their biggest environmental priorities and adhere to international environmental conventions. Over the past three decades, the GEF has provided more than \$23 billion and mobilized \$129 billion in co-financing for more than 5,000 national and regional projects.

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# Clean and Healthy Ocean Integrated Program

#### The Issue

The ocean provides \$2.5 trillion each year to the world economy in market goods and services and many times that in non-market amenities. Today, about 45% of the world's population lives within 150 km of a coastline. Meanwhile, two-thirds of the planet's largest cities are in low-lying coastal areas. While living near water—rivers, lakes, and oceans—supports livelihoods, many human activities put pressure on these same water systems by altering flows and contributing to pollution. According to recent estimates, 70-80% of global wastewater is discharged untreated into the ocean, either directly or via rivers.

Coastal pollution from land-based activities is one of the most serious threats to the world's coastal ecosystems. It directly impacts health, livelihoods, biodiversity, and ecological goods and services. One of the main threats to coastal waters is the increasing levels of nutrients reaching the ocean from point source and/or diffuse land-based sources, such as cities and agricultural activities.

Alarmingly, dramatic declines in oxygen levels in the ocean have been observed over the past 50 years. This has led to the identification of more than 500 dead zones, covering an area roughly the size of the European Union. Dead zones occur when oxygen levels drop so low that marine life is unable to survive. While dead zones likely have

occurred seasonally across history, recent research has shown they have nearly quadrupled across the globe since 1950. Climate-induced warming is adding to the severity and frequency of these events.

#### The Role of the Integrated Program

The Clean and Healthy Ocean Integrated Program will aim to accelerate global efforts to curb coastal pollution from agricultural, industrial, and municipal sources. These sources are directly on the coast or else reach coastal waters from often distant sources via major rivers. The program aims to accelerate both global commitments and national reforms and investments to prevent excessive and uncontrolled nutrient loads from reaching coastal waters.

Curbing the inflow of land-based pollution to the coastal environment is expected to lift the triple bottom line of ecological, social, and economic well-being in countries along the coasts of the world's large marine ecosystems (LMEs). It will deliver substantial global environmental benefits: renewed attention to the impact of untreated wastewater and nutrient run-off in the ocean; and greater knowledge to inform and incentivize national coordinated policy formulation processes and investments.





This program is one of 11 under the GEF-8 cycle. Together with other programs, it will draw attention to the need for global commitment and action. To that end, it will accelerate a frank debate on the need for national policy coherence to address excessive pollution loads in rivers and connected coastal waters.

#### A Two-Pronged Approach

The program takes a two-pronged approach to address coastal nutrient pollution:

- A global multi-stakeholder platform will inform economic and social perspectives critical for understanding the drivers, opportunities, and limitations to achieving better nutrient management at global and regional scales. It will include key cross-sectoral public and private sector actors, civil society groups, and academia, among others. This global platform aims to accelerate action to curb land-based sources of pollution building on recent momentum, such as UNEA 4 and 5 resolutions. It will strengthen science-to-policy linkages; provide policy and technical advice to child projects; and aim to leverage finance for innovative approaches and investments (e.g. providing seed finance to competitive innovation grants and incubators to design and roll out innovative technologies). It will also help facilitate the exchange of knowledge, experiences, and lessons learned.
- To significantly scale up action in LMEs, the program will focus on a subset of countries that contribute significantly to pollution loads in two or three LMEs, one of which prioritizes the needs of Small Island Developing States. Focusing on a limited number of LMEs—and only those with a ministerially approved joint Strategic Action Program—will deliver measurable impact that can be scaled up across their respective regions. On the LME and country level, the program aims to focus on supporting policy and regulatory reforms, including



retooling perverse/competing subsidies across sectors; incentivizing increased domestic finance; scaling up deployment of Nature-based Solutions (NBS) and efforts to combine NBS/green with existing grey infrastructure; and accelerating deployment of innovative finance tools and technology to curb pollution.

#### **Expected Impacts**

The end goal of the Clean and Healthy Ocean Integrated Program is to significantly decrease land-based pollution of the coastal environment. In so doing, it would advance ecological, social, and economic well-being in countries along the coasts of the world's LMEs. Specifically, the program aims to decrease the length and extent of hypoxic zones. It will achieve this by curbing coastal nutrient pollution from agricultural, industrial, and municipal sources through policy and regulatory measures and infrastructure investments combined with NBS.

The causes of nutrient pollution require a cross-sector approach that will improve human and environmental health beyond nutrient and dead zone reduction and restoration of biodiversity. The program will improve health by decreasing sources of nitrates, waterborne diseases, and other contaminants from cities and agriculture. It will improve livelihoods by significantly improving coastal water quality. This, in turn, will restore fish habitats, supporting local fisheries, furthering sustainable coastal tourism, and therefore enhancing local income opportunities and tax revenue. Finally, it will improve food security. In addition to increasing fish yields, it will decouple agricultural yield from inputs of industrial fertilizers and incentivize sustainable and climate-smart agriculture.

#### Contact for Clean and Healthy Ocean IP:

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The Global Environment Facility (GEF) is a family of funds dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health. Its grants, blended financing, and policy support helps developing countries address their biggest environmental priorities and adhere to international environmental conventions. Over the past three decades, the GEF has provided more than \$22 billion and mobilized \$120 billion in co-financing for more than 5,000 national and regional projects.

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