



GLOBAL ENVIRONMENT FACILITY

GEF Support to Climate Technology Development and Transfer

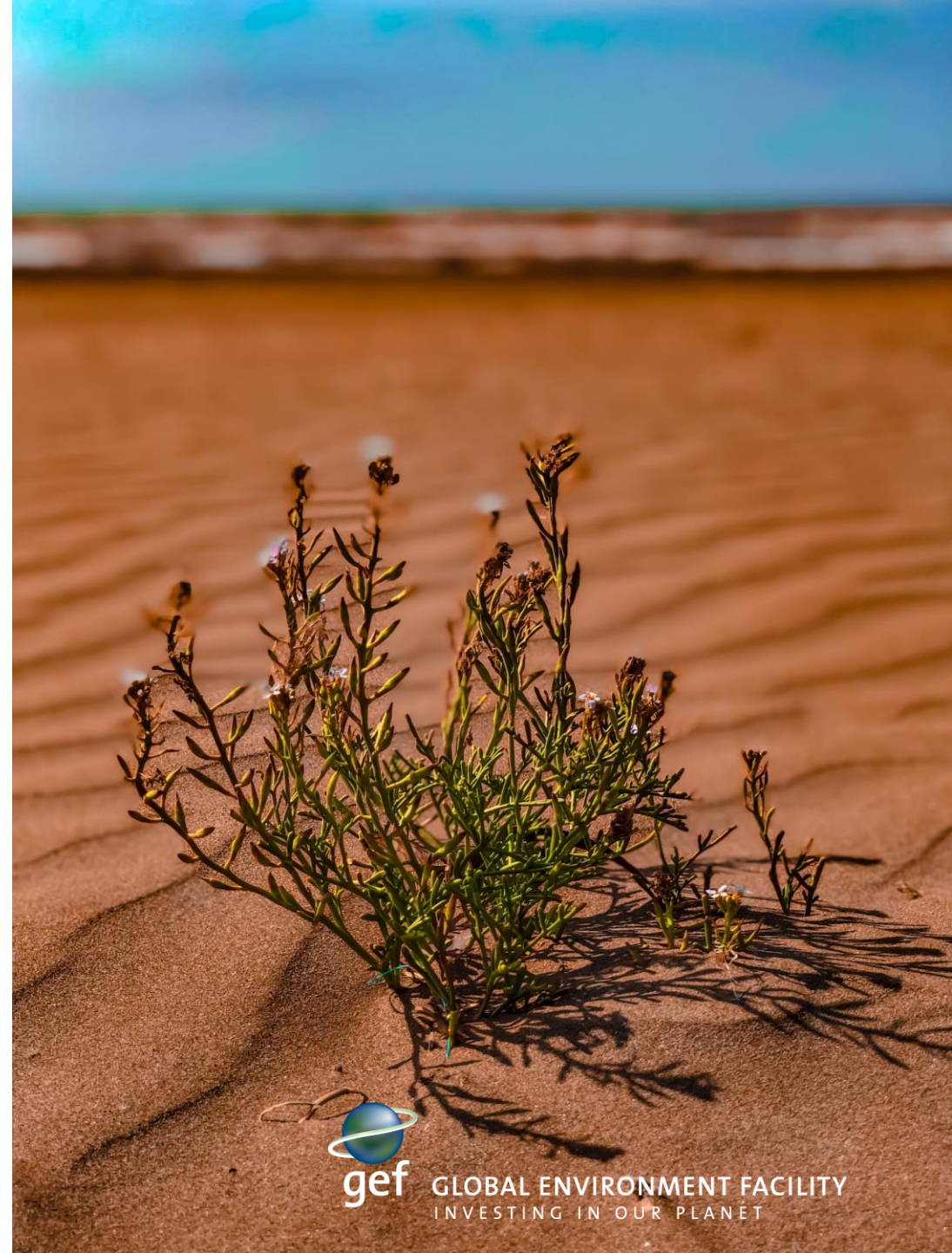
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GEF Secretariat

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GEF overview

- Established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems.
- The GEF's role is to support developing countries to prioritize environmental action that delivers global environmental benefits.
- The GEF is the largest and most experienced multilateral fund dedicated to addressing environmental threats to the planet.



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GEF Agencies



Asian Development Bank (ADB)



United Nations Development Programme (UNDP)



Development Bank of Southern Africa (DBSA)



African Development Bank (AfDB)



United Nations Environment Programme (UNEP)



Foreign Economic Cooperation Office, Ministry of Environmental Protection of China (FECO)



European Bank for Reconstruction and Development (EBRD)



United Nations Industrial Development Organization (UNIDO)



Brazilian Biodiversity Fund (FUNBIO)



Food and Agriculture Organization of the United Nations (FAO)



The World Bank



International Union for Conservation of Nature (IUCN)



Inter-American Development Bank (IDB)



Conservation International (CI)



West African Development Bank (BOAD)



International Fund for Agricultural Development (IFAD)



Development Bank of Latin America (CAF)



World Wildlife Fund (WWF-US)



Support to Climate Technologies

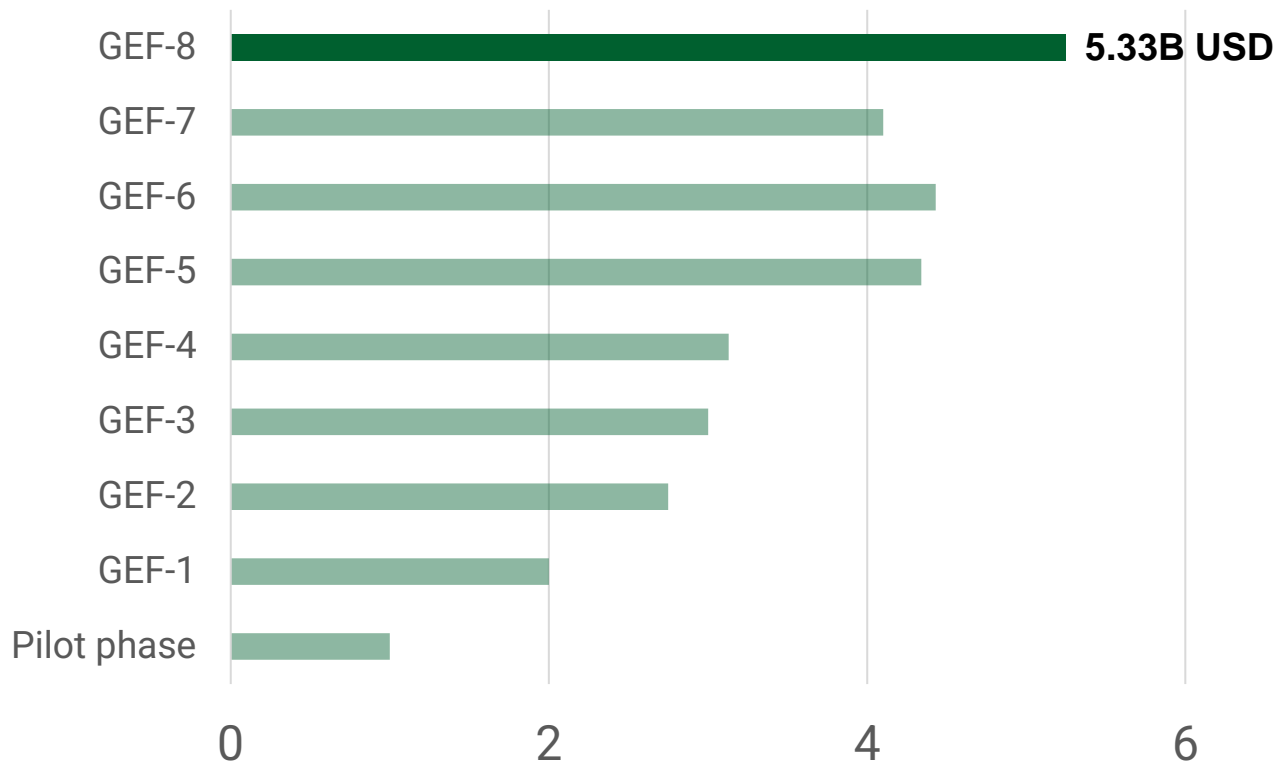
- Cross-cutting priority to the GEF since its establishment
- More than **US\$ 4,000 million** resources channeled to climate technologies since GEF's inception



Funding

GEF Replenishment cycles

(in billion of USD)



- The financial contributions are replenished **every four years** by contributing participants (including developed and developing countries).
- GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements.

Support to Climate Technologies under GEF-8

- Technology transfer continue to be at the core of the programming directions
- Dedicated programming objectives under both climate change mitigation and adaptation
- Projects continue to be country driven and required to demonstrate alignment to national priorities, including in national climate strategies and plans



Climate Change Mitigation

Objective:

Support developing countries to make transformational shifts towards net-zero GHG emissions and climate-resilient development pathways.

Pillars:

1. Promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts
2. Foster enabling conditions to mainstream mitigation concerns into sustainable development strategies



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The GEF-8 Climate Change Mitigation Strategy

Objective 1:

Promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts



Energy & Materials Efficiency



Decarbonized power systems



Zero-emission Mobility Scale-up



Nature-based Solutions



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Types of interventions



Energy & Materials Efficiency

Energy Efficiency

- New EE policies and green/net-zero buildings codes, aligned with NDCs and LTSs
- Support financial and fiscal instruments, business models (e.g. energy as a service/ESCOs) to aggregate demand for EE products and services
- Capacity building for monitoring and enforcement of EE policies and green building codes

Cooling and Heating

- Support electrification of heat uses including development of Sectoral Roadmaps to improve industrial energy supply
- Demonstration of Net-Zero industrial Parks and/or Clusters and circular approaches
- District Heating/Cooling, super efficient appliances, digitalization/Smart EMS

Materials Efficiency

- Support roadmaps to promote “integrated approaches” in buildings, with New Standards and Green Building Codes covering sourcing of materials
- Materials/Energy Performance Standards for Social Housing
- Certification schemes for green materials (incl. *hard to abate*: Cement, Steel, etc)
- Approaches to leverage land use jurisdiction/permitting to incentivize NbS



Types of interventions



Decarbonized power systems

- Support the increase of RE penetration into Grid via VRE integration solutions across:
 - Grid modernization
 - Energy Storage
 - Demand side management
 - Smart Metering

RE Integration Scale up

- Support long-term planning and scenario-analysis from a system perspective
- Integrated resource planning
- Capacity building across Gov't agencies, including for bidding/tendering processes

- Support energy access with renewable energy, especially through Mini-grids
- (→ Expansion of GEF-7 Africa Minigrid Program)

- Support policy and market development for Green Hydrogen production, storage, distribution and usage



Types of interventions



Zero-emission Mobility Scale-up

Zero-emission mobility

- Support integrated approaches to scale up zero emission transport, via:
 - Long term, integrated zero emissions sectoral master plans, at local or national level
 - A-S-I approaches: **A**void/Reduce, **S**hift, **I**mprove – including urban planning
 - Support for policy environments, laws and incentives towards electrification, starting with mass transit, two wheelers, and then light and heavy-duty vehicles
- Support coupling of Renewable Energy with e-Mobility charging stations to leapfrog green decarbonization where possible
- Support innovation and EV-enabled technologies such as Vehicle-to Grid (V2G)
- Explore options to support shipping and aviation
- Proactive approach to recycling and reuse of critical battery minerals/circularity



Types of interventions



Nature-based Solutions

Nature-
based
Solutions

- Support investments in landscapes or seascapes that have potential to generate significant GHG mitigation outcomes, focusing on the Agriculture and Forest sectors
- Key ecosystems being targeted are agroforestry systems and regenerative agriculture, high carbon forests, wetlands, including mangroves, seagrass and marshlands, peatlands.

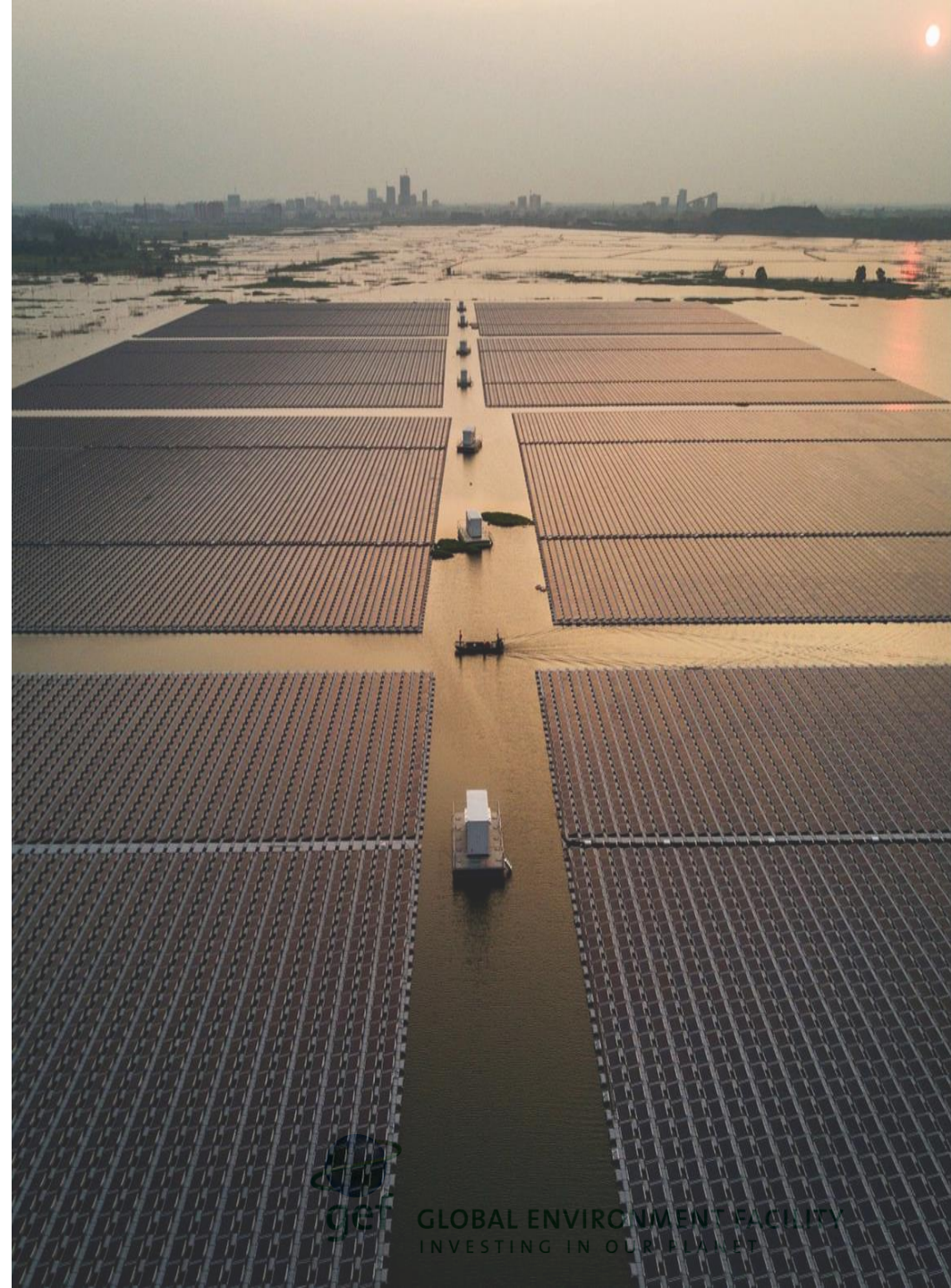


Preliminary GEF-8 Portfolio Pipeline

- **Phase V Global TNA Project** –17 participating countries, 12 of them use STAR resources ~ US\$ 5.6 million.
- **Net Zero Nature Positive Accelerator Integrated Program**
- **Green Hydrogen Program**
- **eMobility Program**
- **Green Buildings Program**

Climate Change Adaptation

- Support to technology transfer is a priority of both the LDCF and SCCF
- Climate adaptation strategy integrates technology into strategy and recognizes technology transfer and innovation are key enablers of sustainable development for LDCs.



Thank you!

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