Annex

Asia-Pacific Country Profiles

East Asia

China

As the world's largest developing country and greenhouse gas emitter, China faces the dual challenge of sustaining economic growth while transitioning toward a low-carbon, climate-resilient development pathway.

Category	Details
Climate Context	Key Hazards: Floods, droughts, extreme heatwaves, typhoons, and sea-level rise. Main Vulnerabilities: Highly populated and economically critical coastal cities; national water and food security; critical infrastructure. Development Challenges: Managing massive energy transition (decarbonization); adapting infrastructure to climate impacts; ensuring water-energy-food security.
National Strategies and Priorities	NDC (2021) Adaptation: Climate risk management, water resource resilience, ecosystem protection, early warning systems Mitigation: Carbon intensity reduction, non-fossil energy, renewable energy expansion, forest carbon sinks, green urbanization, low-carbon transport, carbon market development
GCF Portfolio	Approved Projects: 1 Total GCF Funding: USD 100m
Strategic Opportunities & Gaps	Strategic Alignment: Energy & Industry: Strong focus on decarbonizing the energy sector and heavy industry. Nature-Based Solutions: High priority on increasing carbon sinks by expanding forests and restoring ecosystems. Funding Gaps: Advanced Technology: A gap exists in deploying large-scale, cost-effective technologies like Carbon Capture, Utilization, and Storage (CCUS). Climate Finance: Need to scale up financial mechanisms, as a national low-carbon transition fund is still under study. Potential Partnerships: South-South Cooperation: Actively promoting partnerships with developing nations through the "Belt and Road" initiative and other aid

	programmes. Technology Collaboration: Open call for international R&D partnerships to accelerate breakthroughs in renewables, hydrogen, and other clean technologies.

Mongolia

Mongolia's economy is largely dependent on pastoral livestock, agriculture, and extractive industries. Mongolia is increasingly exposed to climate-related shocks, threatening livelihoods, water security, and urban development.

Category	**Details**
Climate Context	Key Hazards: Dzuds (harsh winters with heavy snow), droughts, desertification, and permafrost degradation. Main Vulnerabilities: High dependence on pastoral livestock and agriculture; significant water security risks; livelihoods threatened by climate-related shocks. Development Challenges: Protecting climate-sensitive economic sectors (herding, farming); combating widespread land degradation and desertification; ensuring sustainable development with resilient infrastructure.
National Strategies and Priorities	NAP (2025) Pastureland protection, livestock risk management, water resource adaptation, climate-resilient agriculture, urban heat planning, health sector resilience, disaster risk reduction, ecosystem-based adaptation, climate services & data NDC (2021) Adaptation: Climate risk management, water resource resilience, ecosystem protection, early warning systems Mitigation: Carbon intensity reduction, non-fossil energy, renewable energy expansion, forest carbon sinks, green urbanization, low-carbon transport, carbon market development GCF Country Programme (2019) Adaptation: Livestock resilience, sustainable rangeland management, water resource security, climate-smart agriculture, forest and land restoration, early warning systems, urban climate resilience Mitigation: Renewable energy scale-up, energy efficiency, low-carbon transport, sustainable buildings, waste-to-energy systems, carbon market development

GCF Portfolio	Approved Projects: 13 Readiness activities: 10 Total GCF Funding: USD 485.1m (Approved); USD 8.3m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Sustainable land and water resource management, especially for the livestock and agriculture sectors; ecosystem and biodiversity conservation; and enhancing disaster risk reduction for events like dzud and drought. Funding Gaps: Annual financing gap primarily in water and forestry, including fragmented institutional coordination, limited integration of climate policy into national budgets, and insufficient capacity for developing bankable proposals. Potential Partnerships: Implementation relies on collaboration with government ministries (Environment, Agriculture), international organizations (UNEP, UNDP, FAO, GIZ, JICA), and financial institutions to mobilize resources and expertise. Technology Collaboration: High need for advanced technologies in early warning systems, climate-resilient crop and livestock management, water-saving irrigation, and advanced climate monitoring to inform planning.

Democratic People's Republic of Korea (DPRK)

As an agrarian developing country with limited access to international finance and technology, DPRK faces significant institutional and infrastructural challenges in building climate resilience and low-emission development pathways. Due to United Nations Security Council Resolution 1718 (2006), all GCF-related financial and technical activities in DPRK are subject to international sanctions, requiring prior approval from the Sanctions Committee and potentially limiting the scope, timing, or delivery of support. For further details, please refer to the DPRK GCF page.

Category	**Details**
Climate Context	Key Hazards: Recurring droughts, severe floods, and typhoons. Main Vulnerabilities: High risk to national food security and water resources; dependence on agriculture; vulnerable rural livelihoods. Development Challenges: Significant institutional and infrastructural deficits; limited access to international finance and technology due to the international sanctions regime.
National Strategies and Priorities	NDC (2019) Adaptation: Not available explicitly

	Mitigation: Carbon intensity reduction, forest carbon sinks, renewable energy, sustainable agricultural practices
GCF Portfolio	Readiness activities: 1 Total GCF Funding: USD 0.7m (Readiness support) All GCF-related financial and technical activities are severely restricted by United Nations Security Council Resolution 1718 (2006). Any support requires prior approval from the UN Sanctions Committee, creating significant barriers to implementation.
Strategic Opportunities & Gaps	Strategic Alignment: As a party to the UNFCCC and the Paris Agreement. DPRK has the potential to connect their National Disaster Risk Reduction Strategy (2019-2030) and National Environment Protection Strategy (2019-2030) to international climate action. In addition, Pyongyang plans a unilateral 16.4% greenhouse gas (GHG) emission reduction by 2030. Funding Gaps: An additional 36% reduction is conditional upon international support, with an estimated cost of US$30 billion. Key adaptation activities include a large-scale forest restoration campaign Potential Partnerships: The DPRK explicitly seeks "positive collaboration with the international community". This presents an opportunity for Green Climate Fund (GCF) engagement. Technology Collaboration: DPRK is looking for collaboration in renewable energy (tidal, wind), nuclear power, energy-saving production processes, and sustainable agriculture

Southeast Asia

Brunei Darussalam

Brunei Darussalam is heavily dependent on fossil fuels. The country faces the dual challenge of reducing emissions while strengthening resilience in sectors such as infrastructure, water resources, and public health. Unfortunately, Brunei Darussalam is not currently listed on the GCF country profiles page as of this writing.

Category	**Details**
Climate Context	Key Hazards: Sea-level rise, coastal flooding, and extreme weather events. Main Vulnerabilities: Low-lying coastal geography; critical infrastructure, water resources, and public health are at high risk. Development Challenges: Managing the dual task of economic diversification away from fossil fuels while simultaneously building national resilience to climate impacts.

National Strategies and Priorities	NDC (2020) Adaptation: Climate-resilient infrastructure, flood and drainage systems, water resource security, biodiversity conservation, coastal protection, public health preparedness Mitigation: Renewable energy deployment, green building standards, sustainable transport, industrial emissions reduction, waste sector management
GCF Portfolio	Brunei Darussalam is not currently engaged with the Green Climate Fund. There is no country profile or listed activities on the GCF website.
Strategic Opportunities & Gaps	Strategic Alignment: Brunei commits to reducing GHG emissions by 20% by 2030 from business-as-usual levels and aims to build climate resilience. The country's plans prioritize safeguarding the environment and adapting to climate impacts. Funding Gaps: Brunei will explore "bilateral, regional and international mechanisms" to meet its NDC targets. Key funding gaps for adaptation exist in enhancing climate resilience against floods and rising sea levels, protecting health from climate-sensitive diseases, and ensuring food security for its agriculture and fishing sectors. Potential Partnerships: The government's "Whole-of-Nation" approach involves public and private sectors, NGOs, and academia, creating a strong foundation for partnerships. Brunei's explicit intent to explore international mechanisms presents a clear opportunity for Green Climate Fund (GCF) engagement. Technology Collaboration: Brunei seeks to strengthen adaptation by integrating climate science into policy, conducting impact assessments, and considering nature-based solutions. There is an opportunity for collaboration on innovative technologies for flood mitigation and waste management.

Cambodia

Cambodia is highly vulnerable to floods, droughts, and tropical storms, with key risks amplified by its tropical monsoon climate and dependence on agriculture and water resources. Cambodia requires substantial international support to address climate impacts that threaten its steady economic development.

Category	**Details**
Climate Context	Key Hazards: Frequent and severe floods, droughts, and tropical storms. Main Vulnerabilities: High dependence on climate-sensitive sectors like

	agriculture and water resources; significant risks to economic development and rural livelihoods. Development Challenges: Protecting economic gains from climate shocks; mobilizing the substantial international support needed for adaptation and resilience.
National Strategies and Priorities	NAP (2021) Water resource resilience, climate-smart agriculture, flood risk management, drought preparedness, coastal area protection, health systems strengthening, biodiversity conservation, ecosystem-based adaptation, community-based adaptation, early warning systems, disaster risk governance, gender-responsive adaptation, urban climate resilience NDC (2020) Adaptation: Climate-smart agriculture, irrigation and water, flood protection, fisheries resilience, public health systems, ecosystem restoration, infrastructure resilience Mitigation: Renewable energy expansion, energy efficiency, sustainable transport, industrial emissions control, waste sector management, forest carbon sinks GCF Country Programme (2021) Adaptation: Climate-resilient agriculture, water resource management, flood risk reduction, drought preparedness, ecosystem-based adaptation, community resilience building, early warning systems Mitigation Renewable energy scale-up, energy efficiency promotion, sustainable transport systems, waste-to-energy solutions, low-carbon buildings, Industrial emissions reduction
GCF Portfolio	Approved Projects: 11 Readiness activities: 14 Total GCF Funding: USD 347.7m (Approved); USD 5.6m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Cambodia is prioritizing adaptation in agriculture, water, infrastructure, and forestry to reduce vulnerability for its people. Funding Gaps: At the time of writing, there is a USD 2+ billion funding gap for adaptation. However, Cambodia has a clear pipeline of prioritized projects and a financing framework, creating an opportunity for GCF investment. Key gaps include institutional capacity and science-based decision-making. Potential Partnerships: The government's multi-stakeholder approach involves ministries, a

	Direct Access Entity for local action, development partners, and the private sector, offering a strong foundation for GCF collaboration. Technology Collaboration: Cambodia seeks technology for climate-smart agriculture, early warning systems, and climate-proofing infrastructure. Collaboration is needed to update its Technology Needs Assessment and implement resilient solutions.

Indonesia

Indonesia faces acute vulnerability to sea-level rise, climate-induced disasters, and ecosystem degradation. While pursuing its vision for equitable and sustainable development, the country is working to balance economic growth, poverty alleviation, and climate resilience across key sectors such as food, water, and energy.

Category	**Details**
Climate Context	Key Hazards: Sea-level rise, coastal flooding, and climate-induced disasters. Main Vulnerabilities: low-lying coastal areas, small islands, and marine ecosystems are highly vulnerable. Key sectors like food, water, and energy security are at risk. Development Challenges: Balancing national priorities of economic growth and poverty alleviation with the urgent need for climate resilience and mitigation across a vast and diverse geography.
National Strategies and Priorities	NDC (2022) Adaptation: Climate-resilient agriculture, water security, coastal protection, public health systems, disaster risk reduction, ecosystem-based adaptation, urban climate resilience Mitigation: Renewable energy transition, low-emission transport, sustainable forestry, peatland restoration, waste management, industrial decarbonization, urban emissions control GCF Country Programme (2023) Adaptation: Climate-smart agriculture, water resource management, coastal and marine resilience, disaster risk reduction, urban climate resilience, public health systems, early warning systems, ecosystem-based adaptation Mitigation: Renewable energy transition, low-carbon transport, industrial decarbonization, peatland restoration, sustainable forestry, waste-to-energy solutions, emissions monitoring systems
GCF Portfolio	Approved Projects: 19

	Readiness activities: 5 Total GCF Funding: USD 578.2m (Approved); USD 7.6m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Indonesia prioritizes adaptation in marine/coastal areas, water, agriculture, and health to build economic, social, and ecosystem resilience, directly aligning with GCF result areas. Funding Gaps: At the time of writing, Indonesia faces a USD 77.81 billion adaptation finance gap for 2021-2030. This creates a clear opportunity for GCF to fund projects in identified priority vulnerable locations, where project concepts are already being developed. Potential Partnerships: A strong collaborative framework exists between government ministries (Bappenas, MoEF), Direct Access Entities (Kemitraan), CSOs, and local communities, which is ideal for implementing GCF-funded, community-focused adaptation projects. Technology Collaboration: Indonesia seeks to apply adaptive technology for agriculture, water management, coastal protection, and early warning systems. Collaboration is needed to implement and scale up these solutions.

Lao PDR

Lao PDR is highly vulnerable to climate impacts such as floods and droughts due to its geography, reliance on natural resources, and limited adaptive capacity. Climate risks threaten key development sectors including agriculture, forestry, hydropower, and public health, with extreme weather events increasingly affecting livelihoods and economic stability.

Category	**Details**
Climate Context	Key Hazards: Floods, droughts, and extreme weather events. Main Vulnerabilities: High dependence on climate-sensitive sectors including agriculture, forestry, and hydropower; limited institutional and financial capacity to adapt to climate shocks. Development Challenges: Safeguarding a natural resource-based economy from climate impacts; protecting critical infrastructure (especially hydropower) from climate risks; and enhancing national adaptive capacity.
National Strategies and Priorities	NDC (2021) Adaptation: Climate-resilient agriculture, forest ecosystem protection, water resource management, disaster risk reduction, climate-resilient infrastructure, public health preparedness, early warning systems

	Mitigation: Renewable energy expansion, sustainable transport, forest carbon enhancement, low-emission agriculture, waste-to-energy systems GCF Country Programme (2021) Adaptation: Climate-resilient agriculture, water security, disaster risk reduction, forest ecosystem services, health systems strengthening, community-based adaptation Mitigation: Renewable energy deployment, hydropower expansion, forest cover restoration, low-emission transport, green building standards, sustainable agriculture
GCF Portfolio	Approved Projects: 9 Readiness activities: 17 Total GCF Funding: USD 206.2m (Approved); USD 9.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Lao PDR's strategies prioritize building climate resilience in its most vulnerable sectors: agriculture, forestry, water resources, health, and transport/urban development. This focus aligns directly with the GCF's adaptation result areas, including health, food, and water security, and enhancing the livelihoods of vulnerable communities. Funding Gaps: Key gaps include weak institutional capacity to mainstream climate action, limited technical knowledge for local planning, and a lack of long-term financing for adaptation. This creates an opportunity for GCF to fund capacity building, technical support for vulnerability assessments, and projects that mainstream adaptation into sectoral strategies. Potential Partnerships: A collaborative framework exists between the National Designated Authority (housed in the Ministry of Natural Resources and Environment), line ministries (Agriculture, Health, etc.), development partners (UN, World Bank), and the Environment Protection Fund (EPF), which is seeking accreditation as a Direct Access Entity. Technology Collaboration: Lao PDR seeks technological collaboration to implement nature-based solutions, develop climate-resilient infrastructure, and improve systems for climate forecasting, early warning, and water information management to better address flood and drought risks.

Malaysia

Malaysia faces significant climate vulnerabilities due to rising temperatures, increased rainfall variability, and sea-level rise. As a resource-dependent economy balancing economic growth with environmental protection, Malaysia's development trajectory is shaped by its need to ensure water security, protect coastal areas, and sustain agriculture under a changing climate.

Category	Details
Climate Context	Key Hazards: Sea-level rise, increased rainfall variability (leading to floods and droughts), and rising temperatures. Main Vulnerabilities: Extensive coastal zones, national water security, and agricultural productivity are at high risk. Development Challenges: Balancing economic growth with environmental protection; managing a resource-dependent economy under increasing climate stress and ensuring a sustainable development trajectory.
National Strategies and Priorities	NDC (2021) Adaptation: Water resource management, coastal protection, agricultural resilience, urban infrastructure resilience, public health preparedness, biodiversity conservation, disaster risk reduction, adaptation M&E systems Mitigation: Carbon intensity reduction, renewable energy, transport decarbonization, industrial emissions control, LULUCF emissions accounting
GCF Portfolio	Approved Projects: 2 Readiness activities: 5 Total GCF Funding: USD 69.6m (Approved); USD 4.8m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Malaysia is mainstreaming climate adaptation into its national development through the 12th Malaysia Plan and the development of a National Adaptation Plan (NAP), as well as policies like the Water Sector Transformation 2040 and the National Agrofood Policy to guide sectoral resilience. Funding Gaps: At the time of writing, a preliminary USD 63.6 million is required for adaptation initiatives. Key gaps present funding opportunities, including the need to establish a national monitoring and evaluation (M&E) mechanism for adaptation, develop high-resolution coastal inundation models, and create a comprehensive national assets database for risk assessment. Potential Partnerships: There are several potential partnership that can leverage Malaysia's institutional frameworks, such as the Technical Working Group on Vulnerability and Adaptation and its sectoral sub-groups led by agencies like NAHRIM (climate modeling) and MARDI (agriculture). Technology Collaboration: Malaysia seeks technology for advanced climate modeling (hydrodynamic, city-scale) and sectoral assessment tools. There is potential to expand on smart farming technologies and GIS-based risk

Category	Details
	mapping for health and agriculture.

Myanmar

Myanmar is highly vulnerable to cyclones, floods, droughts, and sea-level rise. As an LDC with a predominantly rural and agriculture-based economy, Myanmar faces significant development challenges compounded by limited adaptive capacity and ongoing political and socio-economic constraints. Myanmar has two GCF approved projects and seven readiness activities listed in the GCF website. For further details on Myanmar's climate vulnerability, geography, and development context, refer to their national documents in the table below.

Category	Details
Climate Context	Key Hazards: Cyclones, floods, droughts, and sea-level rise. Main Vulnerabilities: Rural, agriculture-based economy exacerbated by limited institutional and financial adaptive capacity. Development Challenges: Addressing urgent climate impacts while navigating significant and ongoing political and socio-economic constraints that affect development and capacity building.
National Strategies and Priorities	NDC (2021) Adaptation: Climate-resilient agriculture, water resource management, early warning systems, disaster risk reduction, health systems strengthening, coastal protection, ecosystem restoration Mitigation: Renewable energy expansion, sustainable transportation, forest conservation, community forestry, emissions data systems
GCF Portfolio	Approved Projects: 2 Readiness activities: 7 Total GCF Funding: USD 4.0m (Approved); USD 5.7m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Myanmar is mainstreaming adaptation through its Climate Change Policy, Strategy, and Master Plan (2018-2030) and will initiate a National Adaptation Plan (NAP) process. Adaptation is the nation's top priority, focusing on agriculture, natural resources, health, disaster risk, and urban planning. Funding Gaps: Myanmar can use support to develop strategies for Natural Resources Management and Urban Low-Emissions Development. Key funding gaps for GCF include developing the NAP, financing agroforestry targets, and implementing climate-resilient infrastructure. Potential Partnerships:

Category	Details
	Partnerships for adaptation will involve local government, CSOs, INGOs, and the private sector. The Environmental Conservation Department is leveraging grants to develop a pipeline of resilient projects in secondary cities. Technology Collaboration: Myanmar seeks technology for climate-smart agriculture (solar drip irrigation), enhanced early warning and forecasting systems, and climate-resilient building design. It will also promote nature-based solutions for adaptation.

Philippines

The Philippines is highly vulnerable to a range of climate and geological hazards including typhoons, floods, droughts, and earthquakes. As a lower-middle-income developing country with a large coastal population and significant poverty incidence, it faces compounding challenges in achieving sustainable development while coping with frequent climate-related losses and damages.

Category	Details
Climate Context	Key Hazards: Typhoons, floods, droughts, and sea-level rise. Main Vulnerabilities: Large and dense coastal populations; high incidence of poverty, which limits adaptive capacity; and significant exposure to frequent and intense weather events. Development Challenges: Managing frequent and severe losses and damages from climate-related disasters, which consistently impedes long-term sustainable development and poverty reduction efforts.
National Strategies and Priorities	NAP (2024) Climate-resilient health, food and nutrition security, water resource security, ecosystem resilience, human settlement resilience, climate-resilient infrastructure, risk-informed systems, climate information services NDC (2021) Adaptation: Food security, water resource management, forest protection, health resilience, coastal protection, human security Mitigation: Energy transition, transport emissions reduction, industrial decarbonization, agricultural GHG reduction, waste management and circular economy GCF Country Programme (2022) Adaptation:

Category	Details
	Climate-resilient agriculture, water resource management, urban climate resilience, coastal zone protection, disaster risk reduction, health sector adaptation, ecosystem-based adaptation, local early warning system Mitigation: Renewable energy scale-up, sustainable transport, forest carbon enhancement, waste management systems, emissions tracking tools
GCF Portfolio	Approved Projects: 10 Readiness activities: 6 Total GCF Funding: USD 172.6m (Approved); USD 2.7m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: The Philippines prioritizes adaptation through its National Adaptation Plan (2023-2050) and Nationally Determined Contributions (NDC). The GCF Country Programme aligns with these national strategies, focusing on climate-resilient agriculture, ecosystems, water, health, and social protection programs. Funding Gaps: Support is needed to overcome barriers like limited capacity to prepare high-quality project proposals and the absence of policies to unlock private investment. The NAP highlights a massive financing need to counter projected economic losses from severe climate impacts. Potential Partnerships: A "whole-of-government-and-society" approach involves national agencies, LGUs, the private sector, CSOs, and academia. The National Steering Committee for the NAP (NAP-NSC) serves as a key multi-stakeholder coordination mechanism. Technology Collaboration: The country seeks technology transfer for multi-hazard early warning systems, climate information services, and climate-resilient agriculture. The NAP also aims to scale up nature-based solutions and enhance data infrastructure for decision-making.

Singapore

Singapore integrates advanced technology and policy innovation to address climate risks while balancing economic growth and sustainability goals. As a high-income country with strong domestic financing capacity, it does not seek GCF funding assistance and is not prioritized for climate finance support under GCF's mandate for developing countries.[49]

[49] https://www.straitstimes.com/singapore/s-pore-won-t-claim-from-climate-loss-damage-fund-will-help-other-countries-access-money-from-it-grace-fu

Category	Details
Climate Context	Key Hazards: Sea-level rise, extreme heat, and water scarcity. Main Vulnerabilities: A low-lying island geography; high population and critical infrastructure density; and limited natural resources, particularly for water. Development Challenges: Pioneering and financing advanced, technology-driven solutions for national survival (e.g., coastal protection, water recycling); maintaining economic competitiveness while executing a comprehensive green transition.
National Strategies and Priorities	NDC (2025) Adaptation: Coastal protection, urban heat resilience, water security, biodiversity conservation, public health adaptation, climate data systems, nature-based solutions Mitigation: Net-zero transition, carbon pricing, green energy imports, sustainable buildings, transport electrification, waste reduction
GCF Portfolio	As a high-income country with strong domestic financing capacity, Singapore is not eligible or prioritized for GCF funding support. It is a contributor to international climate finance rather than a recipient.
Strategic Opportunities & Gaps	Potential Partnerships: Singapore acts as a strategic partner and leader in regional climate finance. It voluntarily mobilizes capital for developing countries through initiatives like Financing Asia's Transition Partnership (FAST-P), a blended finance programme to support Asia's green transition needs. Technology Collaboration: Singapore leverages its position as a hub for innovation by providing technical assistance and capacity building to other nations. Through the Singapore Cooperation Programme (SCP), it has trained officials from over 180 countries in areas including adaptation and resilience-building strategies, green project management, and carbon markets.

Timor Leste

Timor-Leste is highly vulnerable to climate change impacts such as erratic rainfall, prolonged droughts, sea-level rise, and extreme weather events, which threaten agriculture, water supply, and coastal infrastructure. Timor-Leste faces significant challenges in managing climate risks and relies on external support for finance, technology, and capacity-building to pursue sustainable development.

Category	Details
Climate Context	Key Hazards: Erratic rainfall, prolonged droughts, sea-level rise, and

Category	Details
	extreme weather events. Main Vulnerabilities: As a Least Developed Country (LDC), its predominantly agrarian economy, limited institutional capacity, and critical infrastructure (water supply, coastal) are highly vulnerable. Development Challenges: Heavy reliance on external support for finance, technology, and capacity-building; integrating climate resilience into national development amidst significant institutional and resource constraints.
National Strategies and Priorities	NAP (2021) Food security, water resilience, ecosystem-based adaptation, climate-resilient health, disaster risk reduction, infrastructure resilience, climate data systems NDC (2022) Adaptation: Water security, food systems resilience, ecosystem-based adaptation, health sector adaptation, coastal zone protection, disaster risk management, climate information services Mitigation: Renewable energy development, energy efficient cookstoves, forest carbon enhancement, climate-smart agriculture, low-emission transport GCF Country Programme (2019) Adaptation: Climate-resilient agriculture, water resource security, coastal protection, disaster risk reduction, health system resilience, early warning systems, ecosystem-based adaptation Mitigation: Renewable energy access, energy-efficient buildings, sustainable transport, forest conservation, low-carbon planning
GCF Portfolio	Approved Projects: 4 Readiness activities: 6 Total GCF Funding: USD 65.3m (Approved); USD 2.8m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Timor-Leste prioritizes water security, food security (agriculture), disaster risk reduction, resilient infrastructure, and ecosystem-based adaptation. Funding Gaps: There is a significant opportunity to fund a clear project pipeline based on these national priorities. A key gap, and a foundational investment opportunity, is the need for improved climate data, information services, and early warning systems to support all adaptation efforts. Potential Partnerships: Strong potential exists for partnerships with UN

Category	Details
	agencies (UNDP, FAO, WMO) for technical expertise, development partners like JICA and the EU for implementation, and national universities (UNTL) for research. Technology Collaboration: There is an urgent need for technology transfer to establish robust climate information and early warning systems, and to support climate-smart agriculture and water resource management.

Vietnam

Vietnam is highly vulnerable to climate-related hazards such as sea-level rise, typhoons, saltwater intrusion, and flooding, especially in the Mekong and Red River Deltas. As a lower middle-income country with a rapidly growing economy, Vietnam faces the dual challenge of sustaining development while reducing emissions and enhancing resilience across its key sectors. Vietnam has six GCF approved projects and five readiness activities listed in the GCF website. For further details on Timor Leste's climate vulnerability, geography, and development context, refer to their national documents in the table below.

Category	Details
Climate Context	Key Hazards: Sea-level rise, typhoons, extensive flooding, and saltwater intrusion, with acute impacts in the Mekong and Red River Deltas. Main Vulnerabilities: Densely populated and economically critical river deltas, which are central to national food security; rapidly growing economic assets and infrastructure exposed to climate risks. Development Challenges: Managing the dual challenge of sustaining rapid economic growth while simultaneously reducing emissions and building resilience, particularly in its vulnerable delta regions.
National Strategies and Priorities	NDC (2022) Adaptation: Water security, food systems resilience, ecosystem-based adaptation, health sector adaptation, coastal zone protection, disaster risk management, climate information services Mitigation: Renewable energy development, energy efficient cookstoves, forest carbon enhancement, climate-smart agriculture, low-emission transport
GCF Portfolio	Approved Projects: 6 Readiness activities: 5 Total GCF Funding: USD 210.6m (Approved); USD 4.7m (Readiness support)

Category	Details
Strategic Opportunities & Gaps	Strategic Alignment: Vietnam focuses on reducing vulnerabilities in key sectors like agriculture, water resources, and deltaic regions, which are severely impacted by climate change. The NDC prioritizes enhancing the resilience of natural, economic, and social systems, which resonates with the GCF's investment criteria. Funding Gaps: A major gap is the financial shortfall for adaptation, with state resources meeting only 30% of needs at the time of writing. This presents an opportunity for GCF to fund the scaling up of successful adaptation models, such as climate-resilient agriculture and nature-based solutions, and to support the development of climate risk insurance markets. Potential Partnerships: Vietnam seeks partnerships with international organizations and the private sector for financing adaptation projects. There is strong potential for GCF to co-finance projects with MDBs and private entities, particularly in infrastructure resilience and water security. Technology Collaboration: Vietnam seeks international support for technology transfer in climate-smart agriculture, early warning systems, and technologies for preventing coastal erosion and managing water resources efficiently. This opens avenues for GCF to support technology and capacity-building projects.

South Asia

Bangladesh

Bangladesh is facing threats from frequent floods, cyclones, sea-level rise, salinity intrusion, and drought. Bangladesh's high population density, reliance on agriculture, and limited adaptive capacity make it critically dependent on international support for building climate resilience and achieving its climate goals.

Category	Details
Climate Context	Key Hazards: Frequent and severe floods, cyclones, sea-level rise, salinity intrusion, and drought. Main Vulnerabilities: High population density, particularly in low-lying deltaic regions; a climate-sensitive agricultural sector that underpins livelihoods and food security; and limited national adaptive capacity. Development Challenges: Protecting significant and hard-won social and economic development gains from being reversed by climate impacts; heavy reliance on international support to finance the large-scale adaptation and resilience measures required.

Category	Details
National Strategies and Priorities	NAP (2023) Agriculture resilience, coastal zone management, flood risk reduction, urban climate resilience, water resource security, ecosystem-based adaptation, public health resilience, early warning systems, infrastructure adaptation NDC (2021) Adaptation: Disaster risk reduction, flood management, coastal protection, agricultural resilience, urban adaptation, water resource security, health sector adaptation Mitigation: Renewable energy expansion, afforestation, waste-to-energy solutions, sustainable transport, climate-smart agriculture GCF Country Programme (2018) Adaptation: Flood control infrastructure, coastal zone protection, climate-resilient agriculture, water security, urban climate resilience, early warning systems, public health adaptation, ecosystem restoration Mitigation: Renewable energy expansion, low-carbon transport, climate-smart agriculture, industrial emissions reduction
GCF Portfolio	Approved Projects: 10 Readiness activities: 8 Total GCF Funding: USD 464.5m (Approved); USD 6.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Bangladesh consistently prioritizes flood management, coastal protection, and agricultural resilience throughout their national strategies. Funding Gaps: At the time of writing, Bangladesh has identified a USD 230 billion funding gap, creating clear investment opportunities in its 113 prioritized interventions. Major opportunities exist in scaling up urban resilience, climate-smart infrastructure, and nature-based solutions. Potential Partnerships: Strong potential exists with Multilateral Development Banks (e.g., World Bank, ADB) for large infrastructure projects. Collaboration with technical partners like UNDP, NGOs, and the private sector is key for community-led adaptation and innovative financing. Technology Collaboration: Key needs include advanced early warning systems, development of stress-tolerant crop varieties, and innovative eco-engineering for infrastructure.

Bhutan

Bhutan is highly vulnerable to climate change due to its fragile ecosystems, dependence on climate-sensitive sectors like hydropower and agriculture, and its status as a least developed country with limited financial and technical capacity. However, Bhutan maintained carbon neutrality, integrating climate resilience and low-emission development into its national plans while calling for enhanced international support to implement its climate priorities.

Category	Details
Climate Context	Key Hazards: Glacial Lake Outburst Floods (GLOFs), flash floods, landslides, and erratic rainfall patterns. Main Vulnerabilities: Fragile mountain ecosystems; high dependence on climate-sensitive sectors like hydropower and agriculture; and limited financial and technical capacity as a Least Developed Country (LDC). Development Challenges: Maintaining its unique carbon-neutral status and development philosophy while adapting to significant climate risks; securing the enhanced international support needed to protect its vulnerable population and ecosystems.
National Strategies and Priorities	NAP (2023) Water security, food self-sufficiency, disaster risk reduction, health sector resilience, forest and biodiversity, climate-resilient livelihoods, early warning systems, infrastructure adaptation NDC (2021) Adaptation: Watershed management, climate-smart farming, glacier lake risk, urban resilience, health sector adaptation, biodiversity protection Mitigation: Forest conservation, renewable energy, green transport, low-emission agriculture
GCF Portfolio	Approved Projects: 3 Readiness activities: 8 Total GCF Funding: USD 61.9m (Approved); USD 7.3m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Bhutan's priorities align with water, agriculture, forests/biodiversity, health, and disaster risk reduction sectors, providing a robust basis for projects. Funding Gaps: Key opportunities include scaling up ecosystem-based adaptation (e.g., watershed management), climate-proofing critical infrastructure (water, transport), and enhancing climate services and early warning systems for GLOFs and flash floods. Potential Partnerships: Partnerships for project development with Bhutan are through CSOs,

Category	Details
	the private sector (via GCF direct access), and academia (Royal University of Bhutan) as key partners for implementation and research. Technology Collaboration: A clear need exists for technology in advanced climate modeling, GIS for risk mapping, climate-resilient infrastructure design, and improved early warning technologies to address vulnerabilities.

India

India is highly vulnerable to the impacts of climate change due to its vast and diverse geography, ranging from the Himalayas to coastal lowlands, and its dependence on climate-sensitive sectors such as agriculture and water. Rapid economic development, a large population, and exposure to extreme weather events such as droughts, floods, and cyclones compound its vulnerability, requiring robust adaptation and mitigation strategies.

Category	Details
Climate Context	Key Hazards: Droughts, floods, cyclones, extreme heatwaves, and sea-level rise. Main Vulnerabilities: A large population dependent on climate-sensitive agriculture and water resources; extensive and densely populated coastal areas; and fragile Himalayan ecosystems. Development Challenges: Integrating large-scale climate action with rapid economic development to protect a vast population and diverse ecosystems from compounded climate risks.
National Strategies and Priorities	Adaptation Communication (2023) Water resources, agriculture resilience, coastal protection, forest management, health systems, climate-smart cities NDC (2022) Adaptation: Climate-resilient agriculture, water and disaster resilience, coastal and Himalayan protection, health sector adaptation Mitigation: Emissions intensity reduction, non-fossil power capacity, carbon sink enhancement, green finance mobilization
GCF Portfolio	Approved Projects: 13 Readiness activities: 5 Total GCF Funding: USD 1000.0m (Approved); USD 5.6m (Readiness support)

Category	Details
Strategic Opportunities & Gaps	Strategic Alignment: India prioritizes adaptation in agriculture, water, coastal zones, and the Himalayan ecosystem, guided by national and state action plans. Funding Gaps: Funding opportunities in funding large-scale programmes especially in enhancing resilience and reducing climate impact exposure are key investment areas. Potential Partnerships: Key partnerships involve central ministries, state governments for SAPCC implementation, and National Implementing Entities. International platforms like the Coalition for Disaster Resilient Infrastructure (CDRI) serve as a model. Technology Collaboration: India calls for technology transfer. Critical needs include climate-resilient agriculture, advanced water management, and early warning systems.

Maldives

Maldives faces acute climate vulnerability due to its unique geography as a low-lying, small island developing state with dispersed islands, limited freshwater resources, and high exposure to coastal hazards like storm surges, erosion, and sea-level rise. Its narrow, tourism-dependent economy and high import reliance further heighten development risks, making external support essential for achieving climate-resilient and low-carbon development.

Category	Details
Climate Context	Key Hazards: Sea-level rise, coastal erosion, storm surges, and acute water scarcity. Main Vulnerabilities: A low-lying archipelago geography where most land is just meters above sea level; a narrow, tourism-dependent economy; and limited freshwater resources coupled with a high reliance on imports. Development Challenges: Addressing existential threats from sea-level rise; protecting the vital tourism sector which underpins the national economy; and securing essential external finance and technical support for large-scale adaptation.
National Strategies and Priorities	NDC (2020) Adaptation Priorities: Coastal protection, water resources, public health, agriculture resilience, disaster preparedness Mitigation Priorities: Renewable energy, sustainable transport

Category	Details
	GCF Country Programme (2020) Adaptation Priorities: Coastal protection, water security, waste management, climate-resilient infrastructure, ecosystem resilience Mitigation Priorities: Renewable energy, low-carbon transport
GCF Portfolio	Approved Projects: 4 Readiness activities: 5 Total GCF Funding: USD 77.4m (Approved); USD 7.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Maldives prioritizes critical adaptation measures such as coastal protection, water security, and infrastructure resilience. Funding Gaps: Significant funding is required to meet adaptation needs. This presents an opportunity to scale up investments from site-specific projects to integrated, atoll-level management and to leverage private sector finance, particularly from the tourism industry. There is also a need to close data gaps and enhance local capacity for quantifying adaptation needs. Potential Partnerships: Potential exists for public-private partnerships with the tourism sector to co-finance adaptation measures that protect shared economic assets. The government also seeks to forge partnerships with individuals, civil society, and local governments to mobilize climate finance. Technology Collaboration: The Maldives aims to collaborate internationally to develop and promote appropriate technologies for addressing climate change impacts. This includes a focus on innovative solutions like wave energy generation combined with coastal protection and climate-smart agriculture.

Nepal

Nepal faces high climate vulnerability due to its fragile ecosystems, glacial risks, and dependence on climate-sensitive sectors such as agriculture and water. Despite recent development gains, limited adaptive capacity, widespread poverty, and increasing climate hazards such as floods, landslides, and droughts pose serious threats to its sustainable development pathways. At the time of writing, Nepal has four GCF approved projects and five readiness activities listed in the GCF website.

Category	Details
Climate Context	Key Hazards: Floods, landslides, droughts, and Glacial Lake Outburst Floods (GLOFs).

Category	Details
	Main Vulnerabilities: Fragile mountain ecosystems; a large population dependent on climate-sensitive agriculture and water resources; and widespread poverty which limits adaptive capacity. Development Challenges: Protecting recent development gains from being reversed by increasing climate impacts; building resilience for a large, vulnerable population with limited financial and technical resources.
National Strategies and Priorities	NAP (2021) Climate-resilient livelihoods, disaster risk reduction, ecosystem-based adaptation, health system resilience, water security planning, infrastructure resilience, early warning systems NDC (2020) Adaptation: Climate-resilient agriculture, integrated water management, ecosystem-based adaptation, disaster risk reduction, urban resilience, health system strengthening Mitigation Renewable energy, clean transport, energy efficiency, waste management GCF Country Programme (2023) Adaptation Climate-resilient agriculture, water resource resilience, disaster risk reduction, climate-resilient infrastructure, health system resilience Mitigation Clean energy transition, sustainable transport, waste management, low-carbon agriculture, forest carbon sinks
GCF Portfolio	Approved Projects: 5 Readiness activities: 5 Total GCF Funding: USD 148.3m (Approved); USD 5.5m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Nepal prioritizes disaster risk reduction (especially GLOFs and floods), agricultural resilience, and water security. Funding Gaps: Key opportunities lie in funding the GCF pipeline for projects on GLOF risk reduction, scaling up Local Adaptation Plans for all 753 local governments, and resilient agriculture. Potential Partnerships: Strong potential exists with established International Accredited Entities (UNDP, FAO, IUCN) and national Direct Access Entities. Collaboration with ICIMOD for mountain expertise is a key opportunity for GLOF and watershed management.

Category	Details
	Technology Collaboration: High priority for technology in multi-hazard Early Warning Systems, climate-resilient agriculture (e.g., solar irrigation, stress-tolerant crops), and establishing a national Climate Information System.

Pakistan

Pakistan faces acute climate vulnerability due to its diverse geography spanning glaciers, river basins, arid plains, and coastal zones, which expose it to recurring floods, droughts, and glacial lake outburst floods (GLOFs). Despite being a minor emitter, Pakistan grapples with severe development challenges, including poverty, water insecurity, and rapid urbanization, increasing its sensitivity to climate shocks and constraining adaptive capacity. At the time of writing, Pakistan has ten GCF approved projects and nine readiness activities listed in the GCF website.

Category	Details
Climate Context	Key Hazards: Floods, landslides, droughts, and Glacial Lake Outburst Floods (GLOFs). Main Vulnerabilities: Fragile mountain ecosystems; a large population dependent on climate-sensitive agriculture and water resources; and widespread poverty which limits adaptive capacity. Development Challenges: Protecting recent development gains from being reversed by increasing climate impacts; building resilience for a large, vulnerable population with limited financial and technical resources.
National Strategies and Priorities	NAP (2023) Water security, agriculture resilience, livestock adaptation, urban resilience, coastal protection, disaster preparedness, health systems, early warning systems NDC (2021) Adaptation Priorities: Water resources, agriculture resilience, coastal zone protection, ecosystem-based adaptation, disaster risk reduction, health adaptation Mitigation Priorities: Renewable energy, low-emission transport, waste management. industrial decarbonization, forestry carbon sinks GCF Country Programme (2017) Adaptation Climate-resilient water, drought-resistant crops, flood management systems, climate-smart agriculture, early warning systems Mitigation Renewable energy expansion, urban transport upgrade, low-emission agriculture, industrial GHG reduction

Category	Details
GCF Portfolio	Approved Projects: 10 Readiness activities: 9 Total GCF Funding: USD 304.2m (Approved); USD 6.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Pakistan prioritizes the agriculture-water nexus, disaster risk management (floods/GLOFs), and natural capital restoration as core adaptation strategies. Funding Gaps: Opportunities lie in scaling up climate-smart agriculture, urban resilience, and water management ("Recharge Pakistan"). At the time of writing, There is a USD 152 billion adaptation need. In addition there is a gap in the capacity to develop bankable projects. Potential Partnerships: Strong potential with existing partners (UNDP, FAO, World Bank) can be leveraged. The NAP stresses collaboration with provincial governments for local action, the private sector for PPPs, and technical agencies like PMD and GCISC for data. Technology Collaboration: High demand for tech in efficient irrigation, rainwater harvesting, and drought-tolerant crops. A critical need across all documents is for advanced, integrated early warning systems and enhanced hydro-meteorological forecasting services.

Sri Lanka

Sri Lanka's economy and population are concentrated along the southwestern coastline and are dependent on climate-sensitive sectors such as agriculture, fisheries, and tourism. These characteristics make them highly vulnerable to climate change. Despite relatively low per capita emissions, the country faces severe impacts from disrupted monsoon patterns, droughts, and floods, threatening livelihoods, food security, and its upward development trajectory. At the time of writing, Sri Lanka has five GCF approved projects and six readiness activities listed in the GCF website.

Category	Details
Climate Context	Key Hazards: Disrupted monsoon patterns, droughts, floods, and sea-level rise. Main Vulnerabilities: A high concentration of population and economic activity in coastal zones; strong dependence on climate-sensitive sectors such as agriculture, fisheries, and tourism. Development Challenges: Protecting its upward development trajectory, food security, and key economic sectors from being undermined by increasing climate impacts,

Category	Details
	particularly water-related disasters.
National Strategies and Priorities	NAP (2016) Water resource management, agriculture and food security, coastal zone management, health sector resilience, biodiversity and ecosystem protection, infrastructure and human settlements, tourism sector adaptation NDC (2021) Adaptation Priorities: Water resources, agriculture resilience, coastal zone protection, ecosystem-based adaptation, disaster risk reduction, health adaptation Mitigation Priorities: Renewable energy, low-emission transport, waste management. industrial decarbonization, forestry carbon sinks
GCF Portfolio	Approved Projects: 5 Readiness activities: 6 Total GCF Funding: USD 106.1 m (Approved); USD 7.5m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Sri Lanka is focusing on water management, agricultural resilience, biodiversity, and coastal zone protection. Funding Gaps: The primary opportunity is addressing well-defined national priorities such as tourism sector adaptation and scaling up ecosystem-based adaptation. Potential Partnerships: A multi-stakeholder approach involving government, the private sector, and civil society organizations is planned. There is strong potential for public-private partnerships within the tourism industry to protect shared coastal assets and build resilience. Technology Collaboration: Urgent needs include technology transfer for enhanced climate forecasting and early warning systems, climate-smart agriculture, climate-resilient building designs, and efficient water management technologies.

Pacific

Cook Islands

The Cook Islands are highly vulnerable to climate impacts such as sea-level rise and extreme weather due to its low-lying geography, limited natural resources, and reliance on coastal ecosystems. The country faces significant development challenges and prioritizes low-carbon pathways and resilient infrastructure to safeguard its economy and communities.

Category	Details
Climate Context	Key Hazards: Sea-level rise, extreme weather events (e.g., cyclones, storm surges), and water scarcity. Main Vulnerabilities: High reliance on fragile coastal ecosystems for livelihoods and economic activity (including tourism); and limited natural and financial resources. Development Challenges: Protecting communities and economic assets from existential threats posed by climate change; building climate-resilient infrastructure with limited domestic capacity; and achieving a full transition to a low-carbon economy.
National Strategies and Priorities	NDC (2016) Adaptation: Coastal protection, water security, marine park conservation, resilient agriculture systems, climate-smart land management Mitigation: Renewable electricity transition, low-carbon transport GCF Country Programme (2019) Adaptation: Water security, coastal resilience, and disaster preparedness Mitigation: Renewable energy expansion, energy efficiency improvement, and low-carbon development
GCF Portfolio	Approved Projects: 4 Readiness activities: 8 Total GCF Funding: USD 31.9m (Approved); USD 8.6m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: The Cook Islands are focusing on urgent adaptation priorities like coastal protection, water security, and disaster risk management. Funding Gaps: The primary opportunity lies in 11 programmatic areas, including water security and coastal restoration. A key gap is the need for updated vulnerability assessments, as the baseline dates to 2009, alongside the need for international support for technology and capacity building. Potential Partnerships: Strong collaboration potential exists with regional entities like SPREP and international partners such as the ADB, FAO, and UNDP. Domestically, partnerships with the Ministry of Finance and Economic Management (MFEM) and the Bank of the Cook Islands are central to project implementation. Technology Collaboration: There is a critical need for technology transfer in climate-smart

Category	Details
	agriculture (e.g., hydroponics), advanced water management including desalination, proven coastal protection solutions, and strengthening meteorological services.

Fiji

Fiji faces ongoing development challenges from extreme weather events, which threaten its key sectors including tourism, agriculture, and infrastructure, while striving to build a climate-resilient, low-emission economy by 2050. Fiji is highly vulnerable to climate change impacts such as sea level rise, tropical cyclones, and coastal flooding.

Category	Details
Climate Context	Key Hazards: Tropical cyclones, coastal flooding, and sea-level rise. Main Vulnerabilities: Key economic sectors (tourism, agriculture) and critical infrastructure are highly exposed to extreme weather events and coastal hazards. Development Challenges: Protecting its status as a regional economic hub from climate disruptions; financing the long-term, capital-intensive transition to a fully climate-resilient and low-emission economy by its 2050 target.
National Strategies and Priorities	NAP (2018) Coastal protection planning, agriculture resilience, health system preparedness, urban development planning, community-based adaptation, water security, disaster risk management, ecosystem-based adaptation, climate-resilient infrastructure, early warning systems NDC (2020) Adaptation: Community-based adaptation, climate-resilient infrastructure, disaster risk reduction, coastal protection, water resource management, agriculture and food security, health system resilience Mitigation: Renewable energy expansion, emissions data systems, sustainable transport GCF Country Programme (2021) Adaptation: Coastal resilience planning, climate-smart agriculture, water security, health systems strengthening, disaster risk management Mitigation: Renewable energy expansion, low-carbon transport
GCF Portfolio	Approved Projects: 7

Category	Details
	Readiness activities: 3 Total GCF Funding: USD 73.0m (Approved); USD 3.5m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Fiji is prioritizing coastal resilience, disaster risk management, and food/water security. Funding Gaps: The primary opportunity is to scale investments in climate-resilient infrastructure. A significant funding gap for these capital-intensive projects remains a major barrier, alongside a need for more granular, localized climate data to guide planning. Potential Partnerships: Collaboration potential exists to partnerships with Pacific regional organizations (e.g., SPREP, SPC), multilateral development banks for infrastructure financing, and civil society for implementing community-based adaptation. Technology Collaboration: There is a critical need to upgrade climate information and early warning systems, alongside deploying resilient agricultural techniques and construction standards.

Kiribati

Kiribati is highly vulnerable to the impacts of climate change such as sea-level rise, coastal erosion, saltwater intrusion, and extreme weather events. Its dispersed geography and limited freshwater resources, combined with its status as an LDC, pose significant challenges to sustainable development and resilience-building. At the time of writing, Kiribati has two GCF approved projects and two readiness activities listed in the GCF website.

Category	Details
Climate Context	Key Hazards: Sea-level rise, coastal erosion, saltwater intrusion into freshwater lenses, and extreme weather events. Main Vulnerabilities: Extreme scarcity of freshwater resources, high exposure of population and infrastructure to coastal hazards, and limited institutional and financial capacity as a Least Developed Country (LDC). Development Challenges: Addressing existential threats to national sovereignty and territory from sea-level rise; ensuring basic needs like water and food security for a dispersed population; and financing large-scale adaptation with very limited domestic resources.
National	NAP (2020)

Category	Details
Strategies and Priorities	Coastal zone management, freshwater resource security, health sector resilience, agricultural system resilience, disaster risk preparedness, ecosystems-based adaptation, urban settlement planning NDC (2023) Adaptation: Coastal protection infrastructure, freshwater resource security, health system resilience, agricultural climate resilience, disaster risk reduction Mitigation: Solar energy expansion, energy efficiency improvement, transport emissions reduction GCF Country Programme (2023) Adaptation: Coastal protection systems, freshwater security, climate-resilient infrastructure, food and health systems Mitigation: Solar energy expansion, energy access improvement, energy efficiency policy
GCF Portfolio	Approved Projects: 2 Readiness activities: 2 Total GCF Funding: USD 36.2m (Approved); USD 1.6m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Kiribati prioritizes coastal protection, water and food security, health, and resilient infrastructure to address extreme vulnerability to sea-level rise. Funding Gaps: A key opportunity is developing large-scale, integrated projects for coastal adaptation and freshwater security, building on existing vulnerability assessments. A major gap is the limited national capacity and technology to implement ambitious engineering solutions and manage climate data effectively. Potential Partnerships: Collaboration potential extends to partnerships with regional entities like SPREP and SPC for technical support and project implementation, alongside multilateral banks (ADB, World Bank) for co-financing large infrastructure projects. Technology Collaboration: Collaboration is needed for innovative coastal engineering, freshwater lens monitoring technology, and enhanced climate information and early warning systems to support key sectors like agriculture, health, and disaster management.

Marshall Islands

The Republic of the Marshall Islands is highly vulnerable to climate change due to its low-lying geography, with most land only one to two meters above sea level, placing it at extreme risk from sea-level rise and storm surges. As a small island developing state with a dispersed population and limited economic diversification, it faces significant development challenges in building climate resilience and ensuring sustainable livelihoods.

Category	Details
Climate Context	Key Hazards: Sea-level rise, storm surges, coastal erosion, and water scarcity (drought). Main Vulnerabilities: An extremely low-lying atoll geography with most land just one to two meters above sea level; a dispersed population with high exposure to coastal hazards; and limited economic diversification and freshwater resources. Development Challenges: Addressing existential threats to national territory from sea-level rise; ensuring basic needs like water and food security for the population; and financing large-scale, long-term adaptation measures with limited domestic resources.
National Strategies and Priorities	NAP (2023) Coastal zone management, urban infrastructure resilience, health system resilience, community-based adaptation, ecosystems-based adaptation, freshwater resource security, agricultural and food security, fisheries and marine source resilience, disaster risk reduction NDC (2020) Adaptation: Coastal protection, disaster risk reduction, water security Mitigation: Renewable energy, transport decarbonization GCF Country Programme (2023) Adaptation: Coastal protection, water security, early warning systems, health resilience, disaster preparedness Mitigation: Renewable energy, transport decarbonization
GCF Portfolio	Approved Projects: 7 Readiness activities: 4 Total GCF Funding: USD 66.5m (Approved); USD 2.4m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: The Marshall Islands prioritize coastal adaptation against sea-level rise. Priorities include protecting infrastructure, ensuring water and food security, and managed relocation. Funding Gaps: Develop transformative projects based on the NAP, focusing on coastal defenses (seawalls, land elevation), climate-proofing critical urban infrastructure, and ensuring long-term water and food security.

Category	Details
	Potential Partnerships: Collaboration potential exists to partner with Pacific regional bodies (SPREP, SPC), Multilateral Development Banks (World Bank), and UN agencies for technical and financial support. Technology Collaboration: Collaboration is needed with engineering experts in coastal resilience, atoll geomorphology, and land reclamation for effective, durable adaptation solutions.

Micronesia

Micronesia has a dispersed geography, and heavy dependence on marine and coastal resources pose unique development challenges, with climate impacts exacerbating water insecurity, food system fragility, and constraints in service delivery across its islands. Micronesia is highly vulnerable to sea-level rise, saltwater intrusion, and intensifying typhoons that threaten both its ecosystems and infrastructure.

Category	Details
Climate Context	Key Hazards: Sea-level rise, saltwater intrusion, and intensifying typhoons. Main Vulnerabilities: Widely dispersed multi-island geography; heavy dependence on marine and coastal resources for livelihoods and food security; and fragile freshwater and food systems. Development Challenges: Overcoming significant logistical constraints to build resilience and deliver essential services across a vast oceanic state; protecting livelihoods that are dependent on climate-sensitive marine and coastal ecosystems; and securing finance for adaptation.
National Strategies and Priorities	NDC (2022) Adaptation: Coastal protection planning, water resource security, ecosystem-based adaptation Mitigation: Renewable energy, transportation decarbonization GCF Country Programme (2023) Adaptation: Coastal protection infrastructure, water security, disaster risk management, health system resilience, food security, ecosystem-based adaptation Mitigation: Renewable energy, transport sector decarbonization
GCF Portfolio	Approved Projects: 6

Category	Details
	Readiness activities: 9 Total GCF Funding: USD 56.0m (Approved); USD 6.8m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Micronesia prioritizes adaptation, focusing on energy and water security, resilient food systems, ecosystem management, and climate-proofing infrastructure, especially in coastal zones. Funding Gaps: Significant opportunities exist in converting the project pipeline, supported by readiness grants, into funded projects, particularly in coastal resilience, water security, and health. Gaps remain in institutional capacity, project development expertise, private sector engagement, and centralized climate data. Potential Partnerships: Collaboration potential exists for partnerships with regional entities like SPC and SPREP for technical aid, the Micronesia Conservation Trust (MCT) as a direct access entity, and development banks (ADB, World Bank) for large-scale infrastructure projects. Technology Collaboration: Collaboration is needed for GIS mapping for disaster management, electronic monitoring for fishery transparency, renewable energy tech for electricity and transport, and systems for detecting climate-related diseases.

Nauru

Nauru has a highly urbanized population concentrated on a narrow coastal fringe, making it acutely vulnerable to sea-level rise, coastal erosion, and drought. Its development is constrained by limited freshwater resources, a fragile environment, and economic reliance on imports and external assistance, heightening its exposure to climate change impacts.

Category	Details
Climate Context	Key Hazards: Sea-level rise, coastal erosion, and severe drought/water scarcity. Main Vulnerabilities: Highly concentrated population and critical infrastructure located on a narrow coastal fringe; extremely limited natural freshwater resources; and a high economic reliance on imports and external assistance. Development Challenges: Protecting the entire nation's population and infrastructure from coastal inundation and erosion; ensuring long-term water security for the population; and financing large-scale, essential adaptation measures with limited domestic economic activity.
National	NDC (2022)

Category	Details
Strategies and Priorities	Adaptation: Coastal protection, water security, agriculture resilience, health sector resilience, early warning systems Mitigation: Renewable energy transition, transport energy transition
GCF Portfolio	Approved Projects: 3 Readiness activities: 4 Total GCF Funding: USD 36.9m (Approved); USD 3.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Nauru's priorities focus on the "Higher Ground Initiative" to relocate homes and infrastructure away from vulnerable coastal areas, alongside enhancing water security, food security, and creating a healthy environment. Funding Gaps: Key opportunities include the multi-faceted Higher Ground Initiative, water infrastructure such as desalination and storage, and enhancing the resilience of the public health system. Potential Partnerships: Collaboration potential exists in partnerships with Multilateral Development Banks (GCF, ADB), regional Pacific organizations (SPC), UN agencies (WHO, UNDP), and key bilateral donors like Germany (GIZ), Japan, and the Republic of China (Taiwan) for technical and financial support. Technology Collaboration: Critical technology needs for adaptation include reverse-osmosis units for water desalination, hard and nature-based solutions for coastal protection, advanced waste management for resource recovery and composting, and solar PV with battery storage to improve energy resilience.

Niue

Niue is a raised coral atoll in the South Pacific with a population of around 1,500 with no surface freshwater sources. Its development is highly dependent on external aid. Niue's vulnerability stems from rising sea levels, cyclones, and droughts that threaten its fragile groundwater, infrastructure, and limited agricultural base.

Category	Details
Climate Context	Key Hazards: Sea-level rise, coastal erosion, and severe drought/water scarcity. Main Vulnerabilities: Highly concentrated population and critical infrastructure located on a narrow coastal fringe; extremely limited

Category	Details
	natural freshwater resources; and high economic reliance on imports and external assistance. Development Challenges: Protecting the entire nation's population and infrastructure from coastal inundation and erosion; ensuring long-term water security for the population; and financing large-scale, essential adaptation measures with limited domestic economic activity.
National Strategies and Priorities	NDC (2025) Adaptation: Water resource management, agriculture, forestry, fisheries, tourism, ecosystem and biodiversity, marine and coastal ecosystem, loss and damage, invasive species, health, waste management, disaster risk management Mitigation: Renewable energy transition, transport energy transition, agriculture, forest and land use (AFOLU)
GCF Portfolio	Approved Projects: 2 Readiness activities: 4 Total GCF Funding: USD 17.0m (Approved); USD 1.3m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Niue focuses on water security, agriculture, fisheries, disaster risk management, and the crucial link between ocean/marine ecosystem health and its blue economy. Funding Gaps: Key opportunities include large-scale, integrated programmes, particularly in water infrastructure and ocean conservation. Potential Partnerships: Collaboration potential exists in partnerships with key regional bodies (SPC, SPREP), UNDP, and bilateral donors (NZ, Australia, EU). The Niue and Ocean Wide (NOW) Trust is a critical internal partner for innovative ocean financing. Technology Collaboration: Specific needs include SCADA systems for water and energy management, and energy efficiency standards for buildings.

Palau

Palau is highly vulnerable to sea-level rise and increasingly frequent extreme weather events. Palau has a small economy that is reliant on development partnerships, Palau's critical infrastructure, freshwater resources, agriculture, and marine-based livelihoods are at severe risk from climate impacts.

Category	Details
Climate Context	Key Hazards: Sea-level rise, increasingly frequent and intense typhoons, droughts, and flooding. Main Vulnerabilities: As a Small Island Developing State (SIDS), its small economy, critical infrastructure, freshwater resources, and climate-sensitive marine-based livelihoods (fisheries, tourism) are at severe risk. Development Challenges: Protecting critical infrastructure and essential livelihoods from severe climate shocks; financing necessary adaptation measures in an economy that is reliant on development partnerships for large-scale projects.
National Strategies and Priorities	NDC (2016) Coastal protection, water resource management, agriculture climate resilience, ecosystem-based adaptation Mitigation: Renewable energy scale-up, transport emissions reduction, waste management
GCF Portfolio	Approved Projects: 3 Readiness activities: 7 Total GCF Funding: USD 19.9m (Approved); USD 5.3m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Palau prioritizes protecting its vital infrastructure, water resources, agriculture, and marine-based economy from the severe impacts of climate change, including sea-level rise and extreme weather events. Funding Gaps: Palau is dependent on external financing and technology to implement its climate goals, including an unfunded National Solid Waste Framework. An opportunity exists in pursuing energy efficiency measures, which have the potential for substantial, though not fully calculated, financial savings. Potential Partnerships: Implementation of Palau's climate initiatives is highly dependent on securing support from development partners for financing, technology transfer, and capacity development. Technology Collaboration: Key areas for technology collaboration include solar power, energy-efficient building codes and retrofits, appliance standards, improved wastewater infrastructure, and analysis of landfill gas capture.

Papua New Guinea

People living in Papua New Guinea (PNG) are largely dependent on subsistence agriculture and customary land tenure. The country is highly vulnerable to climate risks such as sea level rise,

extreme rainfall, landslides, and tropical cyclones, which pose severe threats to its rural infrastructure, water systems, and livelihoods across its mountainous, coastal, and low-lying atoll regions.

Category	Details
Climate Context	Key Hazards: Extreme rainfall, landslides, tropical cyclones, and sea-level rise. Main Vulnerabilities: Large rural population that is heavily dependent on subsistence agriculture and customary land tenure; diverse and challenging terrain (mountainous, coastal, atolls); and at-risk rural infrastructure, water systems, and livelihoods. Development Challenges: Building climate resilience for a large, dispersed rural population that relies directly on natural resources for survival; overcoming significant logistical challenges to protect remote communities across varied and difficult terrain.
National Strategies and Priorities	NAP (2023) Climate-resilient agriculture, water resource management, health system strengthening, disaster risk management, ecosystem-based adaptation NDC (2020) Adaptation: Climate resilience agriculture, water resource protection, early warning systems Mitigation: Forest emission reduction, renewable energy expansion GCF Country Programme (2020) Adaptation: Climate-resilient agriculture, water resource management, coastal risk reduction Mitigation: Renewable energy development, forest carbon management
GCF Portfolio	Approved Projects: 5 Readiness activities: 5 Total GCF Funding: USD 89.9m (Approved); USD 4.3m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: PNG prioritizes adaptation in climate-resilient agriculture, health, transport, and infrastructure. Funding Gaps: Major opportunities exist in scaling up climate-smart agriculture for smallholders, enhancing early warning systems, and building resilient infrastructure to link farmers to markets. Significant gaps remain in data

Category	Details
	for comprehensive risk assessments and translating policies into budgeted actions at the sub-national level. Potential Partnerships: Collaborations are possible with FAO and DAL for agriculture projects, and with development partners for infrastructure. Collaborating with provincial governments and CSOs is crucial for community-level implementation and reaching vulnerable populations. Technology Collaboration: Key needs include technology for enhanced climate information and early warning systems, GIS mapping for hazard identification, climate-resilient construction materials, and developing drought/flood-resistant crop varieties

Samoa

Samoa faces high exposure to climate risks such as tropical cyclones, sea level rise, and coastal erosion due to its geographic location and limited land area. Its development context is shaped by a high dependence on natural resources, vulnerability of coastal infrastructure, and challenges in health, agriculture, and water security exacerbated by climate change.

Category	Details
Climate Context	Key Hazards: Tropical cyclones, sea-level rise, and coastal erosion. Main Vulnerabilities: High exposure of critical coastal infrastructure and communities; a strong dependence on climate-sensitive natural resources; and stressed health, agriculture, and water security systems. Development Challenges: Protecting critical infrastructure and key economic sectors from frequent climate shocks; ensuring basic needs like water, food, and health security are met under increasing climate stress; and financing adaptation with limited domestic resources.
National Strategies and Priorities	NDC (2021) Adaptation: Coastal risk protection, agriculture and food security, water security Mitigation: Renewable energy expansion, transport energy transition
GCF Portfolio	Approved Projects: 3 Readiness activities: 2 Total GCF Funding: USD 67.7m (Approved); USD 1.0m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Samoa focuses on expanding mangrove forests for coastal protection, increasing agroforestry to protect crops and diversify incomes, and sustainable forest management to reduce flood risk.

Category	Details
	Funding Gaps: Samoa's targets are conditional on receiving external financial support and technical assistance. This presents a direct opportunity for funding large-scale, tangible projects such as mangrove restoration programmes and the development of incentive programmes for reforestation and sustainable forest management. Potential Partnerships: Collaborations are open for development partners and multilateral climate funds to achieve its adaptation and mitigation goals. Potential partnerships include regional organization such as GGGI, SPREP, and UNDP. Technology Collaboration: The country requires technology transfer and capacity building for implementing its goals. This includes technical expertise for large-scale mangrove planting, promoting agroforestry, developing reforestation programmes, and improving data collection to monitor land use and forest cover.

Solomon Islands

The Solomon Islands have high exposure to climate risks. Its development is shaped by a predominantly rural, subsistence-based economy reliant on agriculture, forestry, and fisheries, with many communities living on vulnerable coastal areas and facing limited access to basic infrastructure and services.

Category	Details
Climate Context	Key Hazards: Sea-level rise, tropical cyclones, earthquakes, and tsunamis. Main Vulnerabilities: Large rural population dependent on a subsistence economy (agriculture, forestry, fisheries); high concentration of communities in vulnerable coastal areas; and limited access to basic infrastructure and services. Development Challenges: Building resilience for a dispersed, rural population that relies heavily on natural resources; overcoming logistical and financial barriers to improve infrastructure and deliver essential services in a complex multi-hazard environment.
National Strategies and Priorities	NDC (2021) Adaptation: Community-based planning, coastal zone protection, water and food security Mitigation: Renewable energy expansion, forest carbon enhancement, low-carbon transport

Category	Details
	GCF Country Programme (2023) Adaptation: Water resource protection, coastal resilience, food system security Mitigation: Renewable energy transition, forest carbon management, energy access improvement
GCF Portfolio	Approved Projects: 3 Readiness activities: 3 Total GCF Funding: USD 118.5m (Approved); USD 3.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: The Solomon Islands prioritizes adaptation in agriculture and food security, water resources, coastal resilience, human settlements, and health. Funding Gaps: A primary opportunity is to finalize the National Adaptation Plan (NAP) to structure long-term investment. Key gaps include limited institutional and technical capacity, inadequate data for risk assessment, and insufficient coordination among stakeholders. Potential Partnerships: Crucial partnerships exist with regional organizations like SPREP and SPC for technical support and project delivery. Effective implementation relies on collaboration with CSOs, provincial governments, and faith-based organizations for community-level action. Technology Collaboration: Focus is needed on acquiring technology for early warning systems, developing geo-referenced national information systems for vulnerability mapping, and integrating traditional knowledge with modern climate science.

Tonga

Tonga is highly vulnerable to climate change due to its low-lying geography, heavy dependence on agriculture and fisheries, and high exposure to cyclones, sea level rise, coastal erosion, and ocean acidification.

Category	Details
Climate Context	Key Hazards: Tropical cyclones, sea-level rise, coastal erosion, and ocean acidification. Main Vulnerabilities: Heavy dependence on climate-sensitive sectors (agriculture, fisheries), and high exposure of coastal communities and infrastructure are key vulnerabilities.

Category	Details
	Development Challenges: Protecting a resource-dependent economy from frequent and intense climate and ocean-related shocks; ensuring food and water security for a vulnerable population; and financing large-scale adaptation with limited domestic resources.
National Strategies and Priorities	NAP (2021) Coastal zone management, water security, climate-resilient agriculture, disaster risk reduction, health system resilience, ecosystem-based adaptation NDC (2020) Adaptation: Coastal protection, climate-resilient agriculture, disaster risk reduction Mitigation: Renewable energy development, transport emission reduction GCF Country Programme (2018) Adaptation: Coastal zone resilience, water security, agriculture and food security Mitigation: Renewable energy development, transport emission reduction
GCF Portfolio	Approved Projects: 6 Readiness activities: 12 Total GCF Funding: USD 78.1m (Approved); USD 6.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Tonga prioritizes coastal resilience, water security, food security through climate-smart agriculture and fisheries, and climate-proofing infrastructure. Funding Gaps: Opportunities include integrated coastal protection, resilient urban development, and integrated water resource management. A key gap identified is the need for enhanced data systems to support project planning and monitoring. Potential Partnerships: Critical partnerships are possible with Accredited Entities like the Asian Development Bank (ADB) for infrastructure, the United Nations Development Programme (UNDP) for coastal resilience, and the Food and Agriculture Organization (FAO) for food security. Regional agencies like SPREP and SPC are key for technical support. Technology Collaboration: The focus is on deploying modern mapping and monitoring technologies, specifically using LIDAR and GIS for precise coastal vulnerability assessments and strengthening climate early warning systems.

Tuvalu

Tuvalu has extreme exposures to sea level rise, coastal erosion, saltwater intrusion, and limited freshwater resources. Tuvalu is also highly dependent on external aid and subsistence livelihoods.

Category	Details
Climate Context	Key Hazards: Sea-level rise, coastal erosion, saltwater intrusion into freshwater lenses, and storm surges. Main Vulnerabilities: Severe scarcity of freshwater, high dependency on external aid, and reliance on subsistence livelihoods. Development Challenges: Addressing existential threats to national territory and sovereignty from sea-level rise; ensuring basic needs like water and food security for the population; and financing large-scale, nation-saving adaptation almost entirely through external support.
National Strategies and Priorities	NDC (2022) Adaptation: Coastal protection infrastructure, water security, food system resilience Mitigation: Renewable energy transition, low-carbon transport
GCF Portfolio	Approved Projects: 3 Readiness activities: 4 Total GCF Funding: USD 53.0m (Approved); USD 6.1m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Tuvalu focuses on immediate adaptation needs due to its extreme vulnerability such as coastal resilience. Funding Gaps: A significant opportunity lies in developing a comprehensive National Adaptation Plan (NAP) to guide medium and long-term adaptation efforts. There is also a need to secure more financing for large-scale projects to ensure the nation's survival against sea-level rise. Potential Partnerships: Key partnerships include the GCF, the Government of Tuvalu, and various international donors. Regional organizations and bilateral donors are crucial for implementing adaptation projects. Technology Collaboration: There is a need for technology in coastal protection, such as sea walls, and in water security to combat salinization. Collaboration is also needed for climate-resilient agriculture and managing climate-sensitive diseases.

Vanuatu

Vanuatu's development is constrained by geographic dispersion, limited infrastructure, and a high dependence on climate-sensitive sectors like agriculture, fisheries, and tourism, making it vulnerable to climate change impacts. Vanuatu is highly exposed to climate-related hazards such as tropical cyclones, sea level rise, drought, and ocean acidification.

Category	Details
Climate Context	Key Hazards: Tropical cyclones, sea-level rise, drought, and ocean acidification. Main Vulnerabilities: Limited and exposed infrastructure, and high dependence on climate-sensitive sectors (agriculture, fisheries, tourism) are key vulnerabilities. Development Challenges: Building a resilient economy and protecting livelihoods across a scattered archipelago with significant infrastructure deficits; managing the frequent and severe economic and social impacts of intense natural disasters.
National Strategies and Priorities	NDC (2022) Adaptation: Coastal resilience planning, agriculture and food security, disaster risk management Mitigation: Renewable energy scale-up, transport emission reduction GCF Country Programme (2021) Adaptation: Climate-resilient agriculture, water resource management, coastal zone protection . Mitigation: Renewable energy transition, transport sector reform
GCF Portfolio	Approved Projects: 6 Readiness activities: 10 Total GCF Funding: USD 106.0m (Approved); USD 6.7m (Readiness support)
Strategic Opportunities & Gaps	Strategic Alignment: Vanuatu prioritizes adaptation in agriculture and food security, water resources, resilient infrastructure, forestry, and coastal/marine ecosystem management. Funding Gaps: A major gap exists between planned activities and available resources, with adaptation targets requiring an estimated USD 721 million in conditional funding at the time of writing. A key opportunity is the development of a National Adaptation Plan (NAP) to structure and attract long-term investment for a pipeline of identified projects.

Category	Details
	Potential Partnerships: Crucial partnerships involve regional organizations like SPREP and SPC for technical support, international accredited entities such as UNDP and FAO for project implementation, and strengthening engagement with the local private sector and civil society organizations (CSOs). Technology Collaboration: There is a high demand for collaboration on Climate Information Services (CIS) and early warning systems, climate-resilient building codes and infrastructure, water security technology like rainwater harvesting, and tools for climate-smart agriculture.