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CLIMATE RESILIENCE PROGRAM - ADVANCING TRANSFORMATIONAL ADAPTATION TO BUILD RESILIENCE AT SCALE

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Executive Summary

Why do we need a resilience program?

I. Increasing climate risk requires a comprehensive approach to climate risk management.

1. The adverse impacts of climate change are being felt across the globe and pose serious threats to the achievement of the Sustainable Development Goals. In the next few decades, the climate risks are likely to intensify, occurring both sooner and at a larger scale than previously assessed. Mid- and long-term impacts are expected to be multiple times higher than currently observed across food, water, and health systems, urban and rural infrastructure, and natural ecosystems. Many impacts are expected to be non-linear, cascading, and unprecedented. As certain thresholds and tipping points are reached, an increasing number of climate impacts may have catastrophic consequences.
2. Climate risk disproportionately impacts poor and vulnerable populations. Millions of people in developing countries are expected to be pushed back into poverty due to climate change.[1] Women and men are impacted differently, with poor women and girls more at risk due to pre-existing vulnerabilities and limited capacity. Local and Indigenous communities are typically more reliant on the natural resources for their substance, making them more exposed to climate shocks. Persons with disabilities face additional barriers in accessing adaptation resources and services. Small and medium enterprises, which often form a key part of the economy in developing countries, are hurt by disruptions to production processes and supply chains. The economic costs of climate risk will continue to increase in the near and medium term, especially for developing countries, whose sovereign creditworthiness may be threatened. The financial impacts of climate change may propagate through markets before the physical impacts occur.
3. The increasing level of climate risk calls for a comprehensive approach to climate risk management through investments in adaptation to reduce risk and improve country systems to manage residual risk—i.e., risks that remain even when effective risk reduction measures are in place, and for which emergency response and recovery capacities must be strengthened.

II. Adaptation must go beyond incremental actions to facilitate transformation.

4. Adapting to climate change in developing countries could cost between USD 140 billion–300 billion by 2030 and USD 280 billion–500 billion by 2050. However, adaptation finance remains limited. Estimates suggest that for developing countries, adaptation finance currently falls short

[1] Hallegatte, Stephane; Bangalore, Mook; Bonzanigo, Laura; Fay, Marianne; Kane, Tamaro; Narloch, Ulf; Rozenberg, Julie; Treguer, David; Vogt-Schilb, Adrien. 2016. Shock Waves: Managing the Impacts of Climate Change on Poverty. Climate Change and Development. Washington DC.

by a factor of 5 to 10 times.[2] Private financing is especially lacking, which hinders efforts to adapt on a larger scale.

5. While recent years have witnessed some increase in the implementation of adaptation interventions, the focus has largely been on adjusting existing development activities to manage climate risks. There have been limited efforts to scale up implementation of targeted investments that have a key objective of adaptation. Analysis shows that most adaptation interventions are project-based and tend to focus on the short-term and a single hazard. [3]They do not adequately address the root causes of exposure and vulnerability, and they are usually implemented at a smaller scale. Moreover, it is generally easier to finance no- and low-regret, reactive and incremental adaptation and much more challenging to finance transformational adaptation (both public and private) due to the difficulty in generating revenue and uncertainty of financial returns.
6. These gaps underscore the need to urgently strengthening in-country systems for adaptation financing and at the same time scaling up financing for strategic and targeted adaptation investments that go beyond incremental actions. This includes moving beyond project-by-project financing for adaptation and embedding adaptation priorities with defined outcomes within the wider public investment management processes of countries, thereby not only increasing the share of public sector financing for adaptation but also enabling the alignment of wider financial flows toward climate resilient development. It becomes also critical that support provided by the global climate funds is also aligned with and routed through such in-country systems.

What would the resilience program do?

III. CIF's Climate Resilience Program will enable MDBs to support countries in strengthening systems for financing adaptation at scale and with speed.

7. In response to increasing climate risk and gaps in the implementation of adaptation, the Climate Investment Funds (CIF) proposes to establish the Climate Resilience Program (CRP) that covers the entire climate risk management spectrum. CRP focuses on strengthening in-country systems for climate adaptation financing to enable transformational approaches for building resilience through investments in climate adaptation to reduce risk, and for managing residual risk which is critical for minimizing and addressing loss and damage.
8. CRP will include three components:
    - **Component 1: Undertake climate resilience diagnostics and develop a holistic adaptation investment strategy.** This component will help countries to strengthen the enabling environment for adaptation investments by improving the use of climate analytics for

[2] UNEP (2022), Adaptation Gap Report 2022.
[3] UNEP (2022), Adaptation Gap Report 2022.

decision making; identifying baseline for climate risk and adaptation interventions; developing an adaptation investment strategy to mobilize public and private financing; introducing standards to enable verification of resilience benefits and drive private sector investments in adaptation; and embedding investments in adaptation and strategies to manage residual risk in wider country planning and budgeting systems, while applying a social and economic inclusion lens. The component will draw from countries' National Adaptation Plans or equivalent plans/strategies and communications, to the extent feasible, with some countries expected to require more upstream diagnostic support than others. The component will also bring together the global climate funds in the process of developing the adaptation investment strategy, which can form the basis for the funds to identify and finance projects in the future.

- **Component 2: Finance dedicated adaptation investments that enable transformation.** This component will support project preparation, establish project preparation facilities for private sector investments in adaptation, and finance implementation of transformational adaptation solutions across sectors using a range of financing instruments and modalities. Special emphasis will be on adaptation investments that promote solutions that are gender-responsive, locally-led and thereby build capacity of local governments and explicitly target the most vulnerable groups and ecosystems, while carried out with private sector engagement.
- **Component 3: Build country systems to manage residual climate risk.** This component will help identify actions to manage residual risk, strengthen policies for residual risk management, scale up interventions in disaster risk financing, monitor national and local climate risks and the country's adaptation transition, and support communities and the most vulnerable groups to document climate impacts.

9. Gender will be a key focus of all the three components of the CRP. This includes ensuring (i) gender considerations are integrated in the upstream diagnostics work and gender related adaptation needs are prioritized in the adaptation investment strategies in component 1; (ii) ensuring all investments being financed as part of component 2 mainstreams gender considerations, and where appropriate identifies and supports investments with women as key target; and (iii) institutions, policies and products for residual risk management adopts gender-responsive features. Having a strong focus on gender will allow demonstrating the key role that women, especially women from vulnerable communities can play as agents of change in building resilience.
10. Building on CIF's successful country-led, programmatic, and partnership-based approach—and in particular the global pilot nature of the Pilot Program for Climate Resilience – the proposed CRP will enable multilateral development banks (MDBs) to support developing countries with concessional financing in two ways.
    - First, upstream support will strengthen in-country systems by developing adaptation investments strategies and embedding implementation of strategies withing the wider

public investment management processes of the country, thereby enhancing the enabling environment for identifying, developing and accessing finance for investments in resilience by the public and private sector, including from MDBs and the global climate funds. Such strengthened in-country financial architecture for adaptation will ultimately contribute to improved efficiency in global climate finance architecture. Being able to leverage the decades of experiences of the MDBs in strengthening country systems and working relations with & access to relevant in-country institutions for planning and budgeting will be a unique advantage for the CRP.

- Second, downstream support will finance targeted resilience interventions. Combining upstream and downstream support will enable the MDBs to move beyond a project-by-project approach of climate-proofing development projects. Instead, the CRP aims to drive economies in climate resilient directions. They will be able to identify and finance a pipeline of synergistic projects, especially in climate-sensitive sectors, that have adaptation as a key objective. They will be able to demonstrate action at scale and with speed.

11. By facilitating strong MDB partnerships in strengthening the in-country systems for adaptation investments, co-identifying priority adaptation investments, and mobilizing institutional support and resources toward common adaptation priorities, CRP will also enable the MDBs to go beyond what they would otherwise do in isolation with their own resources and achieve greater impact.

Why is CIF the appropriate "home" for the resilience program?

IV. Concessional financing will help unlock opportunities for transformational adaptation.

12. CRP will provide concessional financing channeled through partner MDBs. The availability of predictable concessional finance through CRP will enable the MDBs to support developing countries in scaling up investments in resilience, while providing incentives to developing countries to take up transformational adaptation measures. CRP can also influence the allocation of wider MDB financing for the poorest countries to focus on adaptation. This approach will help creditworthy low- and middle-income countries that may not have easy access to concessional finance, but face high climate risk, to undertake strategic and targeted adaptation investments that can unlock public and private sector investments in adaptation.

13. CRP concessional finance will also encourage countries to move from project-focused adaptation to a programmatic and systemic approach. This shift is critical for achieving scale and prioritizing transformational measures. Upstream engagement will help countries identify priority adaptation investments, embedding it within wider country planning and budgeting system and identifying appropriate financing sources, including from the MDBs, global climate funds and the private sector. It will also help develop and apply taxonomies, approaches, methodologies, and certification processes that catalyze private sector investments in adaptation. Concessional financing for downstream investments, including grants, loans and

payments for results, will help overcome the barriers that adaptation projects face in delivering outcomes that are public goods, non-market, or are in public-dominated sectors. It will also help to de-risk catalytic, first-of-their-kind private sector investments to support adaptation projects that may not otherwise be feasible.

V. CRP will fill a critical gap globally as a dedicated program on adaptation and resilience at scale and help developing countries overcome barriers to accessing climate adaptation finance.

14. CRP can play a unique role in strengthening the wider climate adaptation financial architecture within countries and thereby enable coherence and synergy among different programs and investments on adaptation supported by the government, MDBs, global climate funds and the private sector. CIF's programmatic approach has demonstrated substantial value as a financing mechanism for driving systemic adaptation in an integrated manner across sectors and embedded within wider country planning and budgeting processes. Through upstream support, CRP's programmatic approach will allow countries to develop an adaptation investment strategy and embedding it within public investment management systems. Such strategies can serve as the basis of all adaptation support (of various scales and degrees of importance) by different partners, including the global climate funds and MDBs (through CRP and beyond). Such approach will help build capacity of developing countries to identify adaptation investments that can be potentially financed by different global climate funds, donor governments, philanthropies and corporates, thereby helping countries overcome capacity barriers to accessing climate adaptation finance.
15. While adaptation elements are embedded within CIF's new strategic programs, a dedicated adaptation and resilience program with explicit adaptation objectives will enable stakeholders to move beyond the sector-by-sector approach for incrementally building resilience and increase dedicated transformational investments in climate resilience at the scale, volume, and urgency needed to adequately address severely increasing climate risks. By delivering targeted adaptation finance through a country-driven programmatic approach, CRP can systemically target the primary adaptation challenges vulnerable countries face.

1 Overview of Issues

1.1 The climate crisis calls for action to build resilience at scale and with speed.

1. **Adverse impacts of climate change pose growing threats to socio-economic development.** The findings from the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) provide strong evidence of the severe, widespread, and increasingly irreversible impacts of climate change on humans and ecosystems. These impacts are being felt in all parts of the world and across systems, such as food production, water security, human health and well-being, and infrastructure and settlement. For example, in 2022, extreme climate events included devastating floods in Pakistan and the worst drought in the Horn of Africa in 40 years. The severe drought across Central Asia in 2021 represents an acute event worsened by the climate-related drying trend across the region[4]. The impacts of slow-onset trends are being felt across the globe. For example, glaciers in the tropical Andes have lost more than 30 percent of surface area since the 1980s, representing the loss of a significant source of freshwater for domestic use, irrigation, and electricity[5]. Coastal regions of Vietnam are facing saltwater intrusion, which contaminates drinking and irrigation water and amplifies the effects of drought, as witnessed during the 2015–2026 drought[6]. These impacts undermine global progress and efforts made to reduce poverty and meet the Sustainable Development Goals (SDG).

2. **Climate risk is likely to intensify and occur both sooner and at a larger scale than previously assessed.** The recently published Annual to Decadal Climate Update by the World Meteorological Organization projects that there is a 66 percent likelihood that the annual average near-surface global temperature between 2023–2027 will be more than 1.5 degrees Celsius above pre-industrial levels for at least one year, and there is a 98 percent likelihood that at least one of the next five years, and the five-year period as a whole, will be the warmest on record[7]. As the climate warms, it is projected to alter the frequency, intensity, extent, duration, and timing of extreme weather events and it is likely to result in unprecedented extremes. Climate change is also projected to increase sea level rise and induce shifts in the long-term average climate that will have profound socio-economic consequences. For example, global mean sea level is rising and will continue to do so for

[4] Earth&Environment (2013), Jie Jiang, Aggravating agricultural droughts over water-scarce Central Asia
[5] WMO (2022), State of Climate in Latin America and Caribbean
[6] OKR (2020), Resilient Shores: Vietnam's Coastal Development Between Opportunity and Disaster Risk
[7] WMO Global Annual to Decadal Climate Update (Target years: 2023-2027)

centuries[8]. Combined with high tides, storms, and flooding, sea level rise increasingly puts coastal and island communities at risk, affecting livelihoods, food security, water security, tourism, and health. Populations in Small Island Developing States (SIDS) of the Pacific and Caribbean region are particularly at risk. The IPCC AR6 finds numerous projected risks to natural and human systems beyond 2040, and the mid-and long-term impacts of these risks will be up to multiple times higher than currently observed. Even if the most ambitious mitigation actions are taken in line with the goals of the Paris Agreement, the world will still experience significant adverse impacts of climate change across systems in the coming decades due to historical warming.

3. **Economic costs of climate impacts are projected to be very high. Countries are already facing high economic impacts of climate-related disasters.** For example, Hurricane Maria in 2017 caused damage to Dominica in the order of USD 1.1 billion, equivalent to 250 percent of its annual gross domestic product (GDP)[9]. While the economic costs in the medium and long term are dependent on future scenarios (i.e., whether the world is on track to hit the Paris Agreement or higher emissions continue), it is projected that the economic costs will continue to increase in the near and medium term, especially for developing countries.

4. **For example, the economic cost of climate risk is already very high in Africa, with losses ranging from USD 7 billion–15 billion every year.** These losses are expected to rise to about USD 50 billion per year by 2030, or around 7 percent of Africa's GDP on average[10]. Climate change could cost countries in Latin America and the Caribbean between 1.5–5 percent of GDP per year[11]. Without adaptation, climate impacts could cost South Asia around 1.8 percent of its annual GDP by 2050, which will progressively increase to 8.8 percent by 2100[12], while Southern Europe could suffer losses of 1.8–4.2 percent of GDP per year by 2080[13] . In Jordan, water demand is estimated to exceed available water resources by over 26 percent by 2025. The World Bank's Water in the Balance report estimates that a 20 percent reduction in water availability (a plausible scenario reflecting scientific consensus) could decrease GDP by up to 6.8 percent in the country[14]. Estimates suggest that the effects of climate change could

[8] IPCC, Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities
[9] UNCTAD (2018), Climate Change and Debt Sustainability in the Caribbean:Trouble in Paradise?
[10] AfDB (2022), COP 27/ Focus Africa
[11] ECLAC (2015), The economics of climate change in Latin America and the Caribbean Paradoxes and challenges of sustainable development
[12] ADB & UK aid (2014), Assessing the Costs of Climate Change and Adaptation in South Asia
[13] IEMed (2020), The Economic Impacts of Climate Change in the Mediterranean
[14] OKR (2020), Publication: Jordan Country Climate and Development Report

cause Bangladesh an average loss of about 1.3 percent in the growth of GDP per year until 2041, hindering the country's long-term aspirations[15].

5. **Such impacts will put pressure on public finances to increase spending on adaptation measures and post-disaster response and recovery.** Simultaneously, countries will face a reduction in revenue due to the loss of potential growth caused by climate change and as sectors of the economy, such as agriculture, struggle with lower productivity.

6. **Climate change is having a disproportionate impact on the poorest and most vulnerable populations.** IPCC AR6 recognizes the role of climate change in increasing inequality and the role of inequality in contributing to increased climate risk. Climate-related shocks can keep people in poverty or drag them back into poverty, because low-income groups have fewer resources, higher vulnerability, and lower adaptive capacity. For example, much of Jakarta lies below sea level and is vulnerable to tidal flooding, storm surges, and sea level rise due to climate change. In North Jakarta, both poverty and flooding rates are the highest in the city, exacerbating the risk for those living in slums[16]. Many of the climate change trends are likely to disproportionately affect the poorest groups in society. For instance, heavy manual labor jobs are common among the lowest paid who are also most at risk of productivity losses due to heat stress[17]. Estimates suggest that without adaptation, climate change will push up to an additional 130 million people into poverty by 2030 and could cause over 200 million people to migrate within their own countries by 2050. In Latin America and the Caribbean region, climate change is estimated to lead up to a 300 percent increase in extreme poverty by 2030[18]. Such impacts will reverse the progress made in reducing poverty.

7. **Climate change will have a large impact on health,** including higher rates of disability. Rising temperature, water stress, and more frequent flooding events will increase the incidence of water-borne diseases and reduce agriculture production, leading to lower nutritional intake. This will disproportionately affect poor and vulnerable populations (especially persons with disabilities and the elderly) since they typically do not have access to basic services. In 2021 and 2022, extreme events put additional stress on health care systems already struggling with the impacts of COVID-19 pandemic. In Brazil, research shows that shocks from rainfall are robustly correlated with higher infant mortality, lower birth weight, and shorter gestation

[15] General Economics Division (GED), Government of Bangladesh (2020), 8th Five Year Plan (July2020-June2025)
[16] World Bank (2012), Indonesia - Urban poverty analysis and program review (English)
[17] World Bank (2016), Heat, Human Performance, and Occupational Health: A Key Issue for the Assessment of Global Climate Change Impacts
[18] World Bank (2022), Climate change and poverty: the perfect storm

periods[19]. The increasing frequency and intensity of extreme weather events impact the education of 40 million children annually, mostly in low and lower-middle-income countries[20]. Wet bulb temperatures as high or higher than 35 degrees Celsius are increasingly being experienced in South Asia, the Middle East, and elsewhere with significant loss of lives[21]. Due to mobility issues and the existing barriers of access to medicine, emergency communications, early warning systems, transportation, evacuation shelters, relief, and recovery efforts, persons with disabilities often experience disproportionately high rates of mortality during disasters trigerred by natural hazarss.

8. **Poor women and girls are particularly at risk.** Climate change impacts women and men differently, with poor women and girls more at risk due to pre-existing vulnerabilities and limited capacity to invest in resilience. Women typically are engaged in the informal economy with no job security and are not covered by existing social protection schemes. They lack access to assets and credits, and formal institutions treat them differently with fewer opportunities. For example, women in the Maldives play a key role in the country's food security through subsistence agriculture produce grown in home gardens, but women are typically not part of the formal labor market. This makes them highly susceptible to hikes in food prices. Further, pre-existing gender inequalities add to women and girls' overall climate vulnerability. Cases from all over the world show that girls are more likely to drop out of school after disasters and face an increased risk of child marriage. Research shows that, by 2025, climate change will be a contributing factor in preventing at least 12.5 million girls from completing their education each year. [22]

9. **Impacts of climate change are a major threat to food security and livelihoods.** Research indicates that increased climate variability and extremes are key drivers behind the recent rise in global hunger and severe food crisis. The poor typically spend a large portion of their total consumption on food, making them highly vulnerable to food price shocks. Estimates suggest that rising food commodity prices in 2021 were a major factor in pushing approximately 30 million additional people in low-income countries toward food insecurity[23]. In coming decades, changes in temperature and precipitation patterns are expected to impact

[19] Science Direct (2014), Water scarcity and birth outcomes in the Brazilian semiarid

[20] Foreign, Commonwealth & Development Office, United Kingdom (2022), Addressing the climate, environment, and biodiversity crises in and through girls' education

[21] The theoretical limit to human survival for more than a few hours in the shade, even with unlimited water, is a wet-bulb temperature of 35 °C (95 °F) – equivalent to a heat index of 70 °C (160 °F).

[22] Malala Fund (2021), A greener, fairer future:Why leaders need to invest in climate and girls' education

[23] World bank (2022), What You Need to Know About Food Security and Climate Change

the distribution and production of staple crops, such as rice and maize, and major cash crops, such as coffee and cocoa. Major maize hotspots that include many countries in sub-Saharan Africa and South Asia are projected to face substantial reductions in yield due to climate change. By the 2050s, global territory suitable for growing coffee may decrease by as much as half due to rising temperature. Such crisis is already being witnessed. For example, in 2012-2013, rising temperature led to a major coffee rust crisis in Central America, with Honduras, Costa Rica, and Guatemala declaring a state of emergency[24]. Local communities and Indigenous People, smallholder farmers, fishers, and pastoralists will be disproportionately impacted due to their direct reliance on natural resources and limited access to safety nets and servcies for adaptation. Research shows that are there are more than 608 million family farms around the world, which produce 80 percent of the world's food in value terms[25]. Most of these producers are in low and lower-middle-income countries and will face substantial losses from climate change depending on the crop they grow and geography.

10. **Extreme weather events are increasingly disrupting the services provided by critical infrastructure.** Estimates show that direct damage to power generation and transport infrastructure caused by disasters triggered by natural hazards is around USD 18 billion a year in low and middle-income countries. These damages result in disruptions that impose costs between USD 391 billion–647 billion a year on households and firms in these countries[26]. In Dominica, a month after Hurricane Maria in 2017, 95 percent of students still had no access to schooling due to damaged infrastructure. This can lead to decreased earning potential over the long term[27]. With the projected increase in extreme weather events due to climate change, such impacts will further increase in the future causing huge strain on public budgets and reducing the attractiveness for private sector actors to invest in such sectors. In particular, the blue economy will suffer as over 90 percent of the world's trade is seaborne. Climate risk is increasingly identified as a key risk to the operation of ports and the maritime supply chain.

11. **Coastal areas, especially coastal urban systems, are hotspots of climate risk.** Much of the rapid population and economic growth is occurring in coastal areas, especially in cities, which are highly exposed to natural hazards. The pace and pattern of rapid and often unplanned urban development, poor environmental management, and overexploitation of natural

[24] IDB, The Most Unexpected Effect of Climate Change
[25] Science Direct (2021), Which farms feed the world and has farmland become more concentrated?
[26] OKR (2019), Publication: Lifelines: The Resilient Infrastructure Opportunity
[27] Government of Dominica (2018), Post-Disaster Needs Assessment Hurricane Maria September 18, 2017

resources in coastal cities have contributed to increasing exposure and vulnerabilities of people and assets. Sea level rise brought on by climate change is likely to increase flood hazards in coastal cities, while changes in precipitation patterns will increase the risk of flooding, drought, and saline intrusion. The increased intensity of tropical cyclones will also increase the likelihood and rate of coastal erosion. Land subsidence due to excessive groundwater pumping, dumping of solid waste into waterways, clogged drainage systems, and deforestation in the upper watershed all contribute to urban flooding in coastal cities. With the large share of population and economic assets at risk, coastal areas will need targeted interventions to strengthen the resilience of wider systems, including developing plans for managed retreat.

12. **Climate change is an existential threat to Small Island Developing States.** SIDS are on the front line of climate change, already facing impacts that threaten their development and stability. Loss of land, beach erosion, loss of fisheries and agricultural lands, and saltwater incursions into freshwater sources and water shortages are some of the common impacts SIDS face. Atoll nations, like Kiribati, Maldives, the Marshall Islands, and Tuvalu, are particularly vulnerable. They are characterized by thin land mass and low average elevations of just 2 to 3 meters above sea level. In the Western Pacific, sea level rise has increased two to three times faster than the global average and exacerbates inundation events associated with storm surges, high surf, and the tide.

13. **Climate change threatens natural ecosystems.** The findings of IPCC AR6 show that extreme, and sometimes irreversible, climate impacts are already being faced by some large ecosystems, such as biodiversity hotspots, regions with food and water insecurity, warm water coral reefs, and arctic environments[28]. These ecosystems and their biodiversity not only provide protection from natural hazards, but they also provide food supply, livelihoods, and economic activities through tourism, fisheries, and aquaculture, and other sectors. For example, the catch potential and productivity of the fisheries sector face major impacts due to observed and projected declines in marine biomass, changing species lifecycles and distribution, and disruptions in the marine food chain. This has a ripple effect on the economy, employment, and consumption pattern of many countries that use fish as a primary source of dietary protein. In Vietnam, estimates suggest that 1.1 million tons of aquaculture production is at risk of flooding each year, corresponding to USD 935 million in exports[29]. Climate impacts on ecosystems, compounded by other human pressures, are expected to be

[28] UNEP (2022), Adaptation Gap Report 2022

[29] Ibid 3.

non-linear, cascading, and unprecedented, as certain thresholds and tipping points are reached, and may have catastrophic consequences. Indigenous peoples, who make up around 15 percent of the world's extreme poor and just five percent of the global population, are protecting 80 percent of the world's remaining biodiversity. Indigenous knowledge and practices are crucial to strengthening climate reslience.

14. **Small and medium enterprises (SMEs) are particularly vulnerable to climate risks.** Extreme events impact businesses by damaging buildings and assets, disrupting production processes and supply chains, increasing prices of inputs, and changing demand for produced goods. However, SMEs often do not have an understanding of future climate risks, nor the technical and financial capacity to adopt comprehensive risk management strategies. These limitations result in SMEs making business decisions today that lock in future risks. At the same time, SMEs are a driver for innovation. There is a growing number of social entrepeneurs among SMEs who are not solely profit-oriented, but want to contribute to tackling the climate and development risks and produce innovative technologies or solutions that can help to strengthen resilience. However, incentives for massive deployment and diffusion of such technologies and solutions are largely lacking. Currently, SMEs are not eligible for grants from the major climate funds, while commercial loan rates in most developing countries are much higher than in developed countries. This is a major barrier for SMEs-led resilience projects targetting the most vulnerable communities and ecosystems, where despite the huge potential transformative impact, not enough revenues can be realized to pay back commercial loans.

15. **Central banks and international finance institutions recognize climate change as a financial risk.** Severe weather and climate events are a frequent source of contingent liabilities in emerging markets, and they can be a direct cause of sovereign defaults as they drain government finances and curb economic growth. Current and growing exposure to natural hazards will impact sovereign creditworthiness and make borrowing more expensive for developing countries, especially for SIDS. The financial impacts of climate change could propagate through markets before the actual impacts occur. As markets start to price climate risks, commercial banks, insurers, and investors might be more cautious, or even withdraw from particularly vulnerable regions or countries. This can influence expected rates of return for investors, as well as investment attractiveness, thus affecting flows into perceived high-risk countries.

16. **Accelerated warming puts countries at serious risk of experiencing adaptation limits, increasing the potential for significant and long-lasting harm.** The IPCC AR6 determines that

as climate risk increases, so does the likelihood of exceeding adaptation limits, i.e., after a certain point it may not be possible to adapt and the result will be loss and damage. Adaptation limits can be "hard", i.e., when adaptation actions are not feasible to avoid risks like when small islands become uninhabitable due to sea level rise, and "soft," when communities do not have the resources to access adaptation solutions. Loss and damage can result from extreme weather events, like floods and tropical cyclones, and slow-onset changes, such as sea level rise, ocean acidification and salinization, and land degradation. In some cases, the damage can be permanent, such as loss of lives, settlements, livelihoods, ecosystems, and culture. Examples of lingering consequences of climate change are already being witnessed, especially in SIDS. In Fiji, the coastal village of Vunidogola was relocated one kilometer inland under the government's climate change program[30] and several others have been identified for potential moves due to coastal erosion and seawater intrusion.

17. **Climate risk is interacting with other risks, resulting in compound effects.** Climate change does not play out in isolation, as witnessed during the COVID-19 pandemic in Bangladesh and India when Cyclone Aila hit coastal areas, causing large-scale devastation. There is increasing recognition of the strong overlap between climate vulnerability and fragility and conflict. According to the Notre Dame Global Adaptation Initiative's climate vulnerability index (ND-GAIN), 16 of the top 25 countries at highest risk of climate-related impacts feature on the World Bank's Fragile and Conflict-affected Situations (FCS) list. Increasingly, cumulative interactions among different risks and risk drivers are observed across sectors and systems. This can have a compounding effect on the scale, duration, and frequency of shocks faced by countries and population groups in the future.

1.2 Progress in building resilience remains patchy with limited adaptation financing.

18. **Good progress has been made in adaptation planning, but implementation remains challenging.** In recent years, countries have strengthened adaptation planning processes by developing Nationally Determined Contributions (NDC), National Adaptation Plans (NAP), or equivalent plans and strategies. Worldwide, 84 percent of countries now have national-level adaptation planning instruments. A growing number of these plans include estimates of the costs of adaptation priorities[31]. However, these estimates typically use sector or project-based costing and are not necessarily a result of detailed economic analysis. There is rarely

[30] ILO (2015), Assistance to villages relocated due to climate change
[31] Ibid 25

any consideration of the benefits of adaptation (in reducing climate change impacts), an analysis of the costs and benefits of different adaptation options, or the appropriate level or scale of adaptation needed. Only a few adaptation plans offer a more strategic approach or consider longer-term issues, including uncertainties and their implications on adaptation investment decisions. Plans provide a good indication of national priorities, but they rarely provide the necessary level of detail needed for mobilizing investments for adaptation. Further, the linkages between adaptation plans and disaster risk reduction plans require strengthening, especially to ensure comprehensive risk management approaches.

19. **Signs of acceleration and shifts needed to enable adaptation remain limited.** There has been an increase in the number of adaptation projects being implemented, especially in sectors such as water, agriculture, forestry and natural resources management, and disaster risk management[32]. However, adaptation measures remain largely fragmented, short-term, and incremental. They are not sufficient to enable the transformation needed to address increasing climate risk. The Adaptation Gap Report of 2022 indicates that adaptation policies and projects tend to be oriented toward the short term, focused on single hazards, and narrow in scope, meaning that they inadequately address the root causes of climate exposure and vulnerability, and insufficiently address the compounding and cascading nature of climate risk. They are also not being implemented at the necessary scale, and international support is not sufficiently aligning with the needs expressed by countries in their national plans[33].

20. **The focus has been on retrofitting development investments using incremental approaches.** Adaptation resources and projects often focus on adjusting the design of existing development activities to incorporate features to manage climate risk faced by the activity and to ensure that the primary development objectives are not compromised. While important, such "climate proofing" does not address the extent to which existing development activities should be formulated based on an understanding of current and future climate risks (i.e. how hazards will interact with changing exposure and vulnerability) and their viability under future climate conditions. This approach of retrofitting development investments is inadequate to address potentially large and even existential climate risks that are likely to arise in the short, medium, and long term with different implications at each temporal increment. Moreover, such an approach may even contribute to maladaptation. Thus focus should be on not only managing climate risks, but also on ensuring how they are

[32] Ibid 25
[33] Ibid 25

managed through inclusive processes that allows addressing underlying drivers of vulnerability[34].

21. **Progress in implementing nature-based solutions for adaptation at scale remains limited.** Healthy ecosystems, such as coral reefs, mangrove forests, tidal flats, coastal wetlands, beaches, and dunes, support biodiversity and act as natural buffers to provide a first line of defense for livelihoods, communities, and infrastructure. Thus, natural ecosystems, their networks, and functions—when sustained, revitalized, and integrated in wider resilience planning processes—can contribute significantly to building resilience while also producing mitigation co-benefits. They are particularly critical in terms of providing flexible responses to uncertainties associated with climate risk. Despite these wider benefits, uptake in nature-based solutions for adaptation remains limited, mainly because of low awareness of the critical role they can play in building resilience, underestimation of the role that remaining intact ecosystems already play in delivering these benefits and a focus on trying to develop these solutions as mitigation activites for offset markets. There is often the perception that grey infrastructure is technically and financially more effective. Other constraints include limited funding, low capacity, and weak governance and institutional arrangements for integrated decision making.

22. **Implementation of effective adaptation interventions depends on in-country capacity.** Successful implementation of climate adaptatoin interventions require capacity within national and local institutions and improved in-country systems, such as fiscal systems, infarstructure planning and management systems etc. There remains large gap in capacity in developing countries, especially that are in fragile and conflict affected situations.

23. **Adaptation metrics are also challenging. Unlike mitigation, there are no universal standard metrics for adaptation.** What constitutes an effective and successful adaptation outcome is largely context specific. Currently, the focus of adaptation metrics tends to be related to the number of people receiving support and other proxy inputs to strengthening the adaptive capacity of people, plans, assets, and ecosystems, based on the assumption that such support will enhance resilience. However, it is increasingly recognized that effective adaptation needs to address underlying drivers of vulnerability in order to contribute to building wider resilience. While other metrics related to avoided losses and economic well-being are sometimes used, measurementin the context of climate hazards and uncertainties remains challenging and requires further work Further, work on metrics for adaptation need to build

[34] Ibid 25

on country systems and processes in order to ensure results of adaptation interventions can be tracked and measures.

24. **Adaptation costs are growing faster than finance for adaptation.** The adaptation finance needs of 76 countries that estimated such needs in their NDCs or NAPs are around USD 71 billion per year (in 2020 prices) until 2030. The Adaptation Gap Report 2017 estimated that the annual costs of adaptation in developing countries could be between USD 140 billion–300 billion by 2030 and USD 280 billion–500 billion by 2050[35]. Recent estimates show that the economic impacts of climate change are likely to be higher than previous estimates, and, correspondingly, the costs of adaptation are likely to be higher. The Adaptation Gap Report 2021 estimates that the cost of adaptation is likely to be in the upper range of the 2017 estimates, as described in Table 1. Individual countries are also estimating such costs in their NAP. For example, the NAP of Nepal estimates a total cost of USD 47.4 billion for implementing priority adaptation programs between 2022–2050. Bangladesh estimates a total cost of USD 230 billion between 2023–2050. These figures give an indication of the volume of financing needed for adaptation in developing countries.

Table 1: Developing Countries' Potential Adaptation Finance Needs for 2021–2030 by Region

Region	Annual adaptation finance needs in USD billion (2020 value)		Annual adaptation finance needs as a percentage of GDP	
	Median	Min-Max	Median	Min-Max
East Asia and Pacific	69	27-208	0.35	0.14-1.05
South Asia	59	23-177	1.69	0.66-5.10
Sub-Saharan Africa	36	14-109	2.10	0.82-6.34
Latin America and Caribbean	21	8-62	0.41	0.16-1.25
Middle East and North Africa	15	6-44	0.47	0.19-1.43
Europe and Central Asia	4	1-11	0.69	0.27-2.08
Global	**202**	**79-612**	**0.60**	**0.24-1.80**

Source: UNFCCC. 2022. Developing Countries Adaptation Finance Needs: Insights from Domestic Adaptation Plans

25. **Adaptation finance falls far short of need.** The *Global Landscape of Climate Finance 2021 Report* tracked USD 632 billion per year for 2019–2020 of global climate finance (developed and developing), of whichUSD 571 billion flowed to mitigation, USD 46 billion to adaptation,

[35] Ibid 25

and USD 15 billion to crosscutting themes that include both mitigation and adaptation[36]. The report states that the level of adaptation finance for developing countries falls far short of estimated need—potentially by a factor of 5 to 10. From 2019–2020, around USD 11.4 billion was tracked for adaptation in Africa, which is approximately 39 percent of all tracked climate finance for the region'a total climate finance for the same period and significantly less than the USD 52.7 billion needed annually until 2030. If this trend were to continue through 2030, cumulative adaptation finance through 2030 would be USD 125.4 billion—less than one-quarter of the estimated needs stated in NDCs[37]. Similarly, Latin America and the Caribbean have one of the world's largest adaptation financing gaps, with the region needing up to USD 18.1 billion more each year to respond to and prevent ongoing losses from climate change[38]. These findings underscore the need for accelerated action to scale up long-term financing for climate adaptation. This requires not only urgently mobilizing billions of dollars for adaptation but also fundamentally aligning trillions of dollars of public and private investments in adaptation and resilience[39].

26. **Adaptation finance is not reaching places where it is needed the most.** Estimates suggest that hundreds of billions of dollars are needed annually to strengthen the climate resilience of small-scale farmers and agri-enterprises. Despite the scale of these needs, estimates show that in 2017–2018, the cumulative climate finance tracked for agriculture, forestry, and land use was only 3 percent of total tracked climate finance, and only 1.7 percent of total climate finance tracked supported the needs of smallholder farmer[40]s . A key objective of climate adaptation finance is to support adaptation measures that improve the well-being of the poorest who are hardest hit by the impacts of climate change. However, less than one dollar of every 10 committed from dedicated climate funds explicitly seeks to support local climate action[41]. It is critical to bridge this gap by scaling up targeted, high-volume, and high-quality climate finance to support climate-resilient development and empower poor and vulnerable women and men to make climate-responsive development choices.

27. **Private sector financing for adaptation remains limited.** For example, in Africa, of the USD 11.4 billion in adaptation commitments tracked in 2019–2020, more than 97 percent came

[36] Ibid 3.
[37] GCA (2020), Financial Innovation for Climate Adaptation in Africa
[38] IDB Invest(2020), IDB Invest's White Paper Calls for Rapid Rise in Climate Adaptation Financing
[39] OECD (2020), Climate-resilient finance and investment
[40] CPI, IFAD (2020), Examining the Climate Finance Gap for Small-Scale Agriculture
[41] IIED (2018), Breaking barriers to local climate finance for the triple win

from public actors. Less than 3 percent was tracked from the private sector, with nearly all (90 percent) committed by institutional investors, such as foundations, insurance companies, asset management firms, pension funds, and endowments[42]. Innovative financing instruments can play a critical role in helping countries mobilize long-term resources and unlock public and private sector financing for adaptation. For example, blue bonds can provide financing to protect marine ecosystems, sustainable fisheries, and livelihoods of coastal communities from the impacts of sea level rise. This can help steer the blue economy in a climate-resilient direction. Innovative insurance products can also play an important role in the repair and maintenance of coastal ecosystems damaged by natural hazards, but their uptake in developing countries remains limited. Results-based financing can also play an important part in directing private capital flows toward adaptation. This includes sustainability-linked bonds and loans and specially developed instruments, such as the AfDB's Adaptation Benefits Mechanism and other instruments linked to procurement of adaptation solutions, technologies, and services. Using intermediated finance tools to channel private funds toward adaptation for relevant sectors and beneficiaries can also increase impact. The private sector will need to be supported in understanding physical climate risks within their operations and portfolios, which will also help drive investment into adaptation.

1.3 A programmatic approach is critical to scaling up targeted investments for climate resilience.

28. **Good progress has been made in adaptation planning, but implementation remains challenging.** Early adaptation is critical to address increasing climate risk and to build resilience. Early investments in adaptation can reduce the economic costs of climate change significantly. For example, research shows that the benefits from avoided damage in agriculture and coastal zones of Indonesia, the Philippines, Thailand, and Vietnam can reach 1.9 percent of GDP by 2100, compared to the adaptation cost of 0.2 percent of GDP[43]. Such investments can also help demonstrate to potential investors that climate risks are being managed.

29. **Delayed action will result in higher costs and reduced opportunities for building resilience.** With massive investments being made in low and middle-income countries, the stock of low-resilience assets is growing rapidly, increasing future costs of natural hazards and climate

[42] Brookings Institution (2023), Climate Change: Adapting to a New Normal

[43] ADB (2011), The Economics of Climate Change

change. Investments being made today risk locking in vulnerability to climate impacts for decades to come if they fail to consider resilience at a systems level. Moreover, findings of IPCC AR6 show that climate impacts associated with a global temperature rise of 2 degrees Celsius would be far worse than those under a warming of 1.5 degree Celsius, thereby drastically reducing the possibilities of adaptation.

30. **Investing in resilience generally leads to economic benefits.** There is growing evidence that investing in adaptation is beneficial. Research shows that investing in resilient infrastructure in low and middle-income countries generates USD 4 in benefit for each USD 1 invested[44]. In Latin America and Caribbean Region, investing in resilient energy, water, and transportation infrastructure will cost up to USD 13 billion per year until 2030, with 3 percent incremental costs compared to non-resilient infrastructure, but would deliver a net benefit of USD 700 billion[45].

31. **Climate adaptation efforts need to focus on strengthening the resilience of systems.** It is important to ensure individual assets factor climate risk considerations into their design, but equally important is understanding the risks faced at a system level (for example, economic systems, social systems, natural ecosystems, built environment). This understanding can help identify and prioritize investments that steer development in a resilient direction. A system-wide approach for resilient development will help reveal the interdependencies between assets in different sectors, including physical dependency resulting from direct structural or operational linkages between two systems, geographical dependency where systems are co-located in a site, and functional dependency where a system is reliant on the function or services of other systems. A systems approach also helps identify positive or negative impacts that adaptation responses (such as the introduction of new approaches, technology, policies, governance, and institutions) may have on other systems. For example, a solution in one area may inadvertently increasing risk in another or for certain communities and ecosystems.

32. **Investments in adaptation need to promote dynamic adaptation pathways.** A great deal of uncertainty is associated with climate change, its future projection and impact, socio-economic changes with time, and the availability of adaptation solutions. As such, adaptation responses proposed through investments must be flexible and keep options open to avoid creating path dependencies and lock-in. Adaptation pathways identify and prioritize a range of adaptation-related outputs based on a sequence (or sequences) of decision points with

[44] Ibid 23
[45] Ibid 23

identified thresholds. Testing different pathways against different scenarios can help identify signals and decision triggers for taking adaptation actions and articulate temporal scales to move toward desirable futures. A pathways approach can also help guide decisions away from maladaptation. If pathways planning is participatory, it can enable engagement and governance and reinforce buy-in by affected communities.

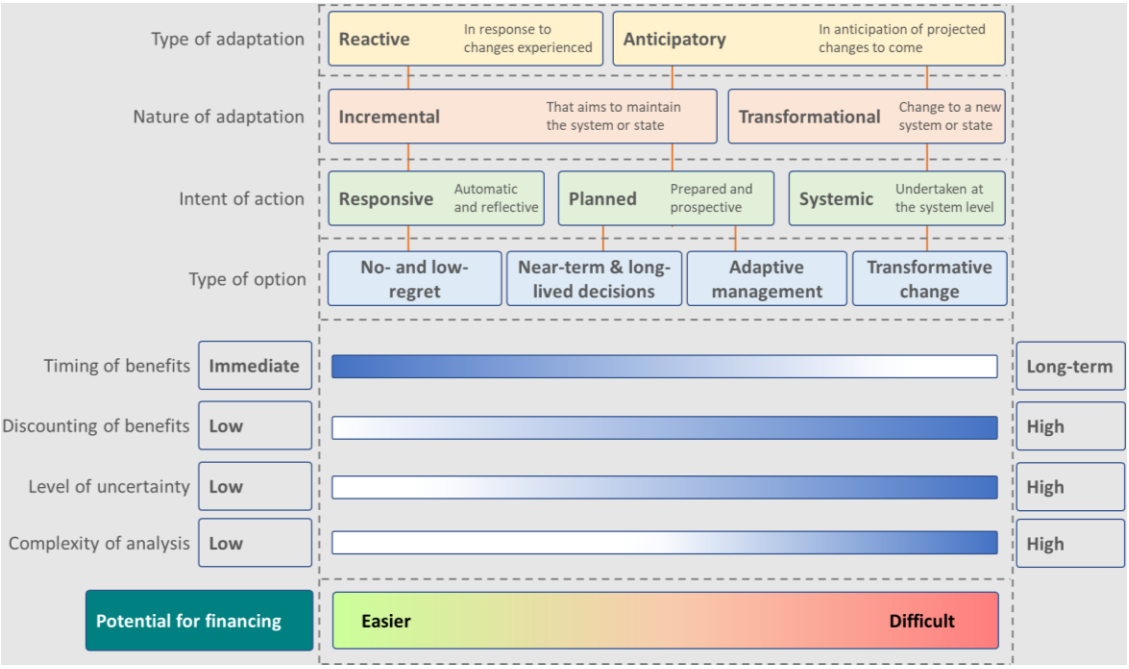
33. **Investments in adaptation requires building capacity and country systems.** It becomes critical to strengthen capacity of national and local institutions in development countries, especially in fragile and conflicted affected countries in order to deliver effective adaptation interventions. Long-term capacity building of national and local institutions and partnerships with local technical organizations becomes critical.

34. **An adaptation strategy that supports a range of strategically linked, multi-phased investments is better suited to building long-term resilience than discrete investments.** In the context of coastal areas, this may involve introducing a combination of soft and hard defenses, incorporating expected sea level rise into a periodic maintenance scheme of coastal infrastructure works, and making spatial reservations for future coastal defenses. While good adaptation options are currently available in some coastal areas, it may not be possible to adapt in the future due to extreme sea level rise. Managed retreat and other options may need to be explored to avoid displacement and to put in place governance processes to support moving to less vulnerable areas further inland in an organized manner. This includes introducing land use management practices, such as coastal setback regulations to limit development to a predefined distance from the shoreline. Zoning instruments, such as transfer of development rights, allow landowners with holdings in a hazard area to trade their development rights to a safe receiving area. Preparing for retreat requires adopting participatory, multi-stakeholder, and multi-scalar governance processes and understanding the wider political economy. For coastal infrastructure such as ports where business cannot be conducted at a distance, it is critical to build in solutions that deal with implications of future climate change, particularly sea level rise. In addition to coastal areas, cities need diverse strategies and investments. Depending on context, priority investments could range from individual measures—such as flood defenses, sustainable urban drainage, water efficiency, leakage reduction and shading and planting—to large-scale strategies, such as significant reworking of land use and the built environment to enable the population to survive and work. Since no single adaptation response is enough, a combination of approaches must be implemented, with attention to governance issues to ensure that outcomes are equitable and sustainable.

35. **Country systems must manage residual risk for building resilience.** Recognizing the limits to adaptation, systems must be strengthened in countries to manage residual risks. According to UNDRR, these are risks that remains in unmanaged form, even when effective risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. Improvement of such systems will enable countries to be better prepared for and respond to long-lasting climate impacts. This includes investments in strengthening institutions for improved disaster preparedness, strengthening early warning systems, and enhancing financial preparedness for disaster response and recovery.

36. **Investments in adaptation need to promote transformation.** CIF's Transformational Change Learning Partnership defines transformational change in climate action as a fundamental change in systems relevant to climate action, with large-scale positive impacts that shift and accelerate the trajectory of progress toward climate-neutral, inclusive, resilient, and sustainable development pathways. As shown in Figure 1, it is generally easier to finance no- and low-regret adaptation that is reactive and incremental than it is to finance anticipatory and transformational adaptation, due to the difficulty in generating revenue and uncertain financial returns from such investments. There is an urgent need to stimulate more uptake of transformational adaptation solutions.

Figure 1: Financing Adaptation Actions



Source: Watkiss, P (2022). Barriers to Financing Adaptation Actions in the U.K. Literature Review for the Climate Change Committee

37. **Adaptation efforts need to address barriers to incentivize further actions**. Such barriers include weak institutional capacity and inter-agency coordination at all levels of government to undertake risk-informed decision making. Breaking down these barriers can help in prioritizing adaptation measures and mobilizing long-term financing for implementation, including from the private sector. Barriers may also be financial, including limited fiscal space for investing in resilience and limited capacity for financial risk management. Technical barriers include limited capacity to generate climate risk information, lack of capacity and know-how to design and structure large-scale climate adaptation investments (including through nature-based solutions), limited capacity to update and enforce implementation of climate-responsive infrastructure standards, and limited systems to track expenditure and outcomes for climate adaptation investments.

38. **The private sector faces specific challenges that need to be addressed.** To scale up private sector engagement in climate adaptation, it is critical to address barriers that are specific to the private sector. This includes knowledge gaps that prevent the private sector from integrating climate change risks into their businesses. Feasibility studies, business risk assessments, technical assistance and market studies can help address private sector knowledge gaps. Moreover, the private sector is not homogenous. For example, SMEs, which

constitute much of the private sector in developing countries, face specific adaptation implementation challenges, including limited access to affordable finance, lack of knowledge of climate change risks, and limited availability of technical resources. CIF engagement with MSMEs also reveals a general perception that climate change adaptation has high opportunity cost and low return on investment. They also believe the public sector needs to establish enabling systems to encourage business creation in the adaptation and resilience space. For non-financial corporates, a combination of technical assistance (to identify current and future climate risks in operations) and associated financing is critical, as their resilience often affects regional or even nation-wide resilience. Financial corporates also need technical assistance and financing to identify and address physical climate risks in their portfolios. Priority should be given to mechanisms that have the potential to help reduce grant intensity in the long run. For example, methodological and process standardization will reduce transaction costs, as will using tools such as adaptation technology selectors. Aggregation mechanisms are also needed to address capacity building and financing needs in the context of SMEs. The EBRD's Green Economy Financing Facility is a well-proven model that enables smaller adaptation financing needs in the private sector to be met through intermediated financing via local banks. The AfDB's Adaptation Benefits Mechanism is another way to help reduce transaction costs while aggregating smaller projects.

39. **An integrated and programmatic approach to climate resilience is needed.** The aforementioned issues call for building resilience at the systems level through strategically targeted, linked investments in climate adaptation and residual risk management. ***It requires a programmatic approach that can address systematic barriers at the planning and financing phases to strengthen policies, institutions, and partnerships to unlock and scale up targeted interventions for building resilience. Such interventions should cover the entire risk management spectrum by comprehensively investing in climate adaptation to reduce risk and building systems for residual risk management.*** CIF's Pilot Program for Climate Resilience (PPCR) demonstrated the tremendous potential of such an approach for tackling climate resilience issues and has already generated a range of lessons on how to do so effectively (described in Box 1).

Box 1: Lessons from the Pilot Program for Climate Resilience

The Pilot Program for Climate Resilience (PPCR), a targeted program of CIF's Strategic Climate Fund, was an early mover in providing programmatic financing to support country efforts in integrating climate resilience into development planning and implementation. PPCR's country-led programming process enabled countries and regions to develop strategic investment plans with projects that were implemented through partners MDBs with PPCR financing. PPCR supported 18 countries in preparing investment plan and implementing projects for a total portfolio of USD 1 billion. PPCR's unique design of providing support for mainstreaming climate risk in development while also providing support for adaptation investment projects empowered transformational change. Lessons from PPCR encompass the following areas:

Country-led and participatory approach to programming for anchoring climate resilience investments within national socio-economic development agenda.

- Coordination across multiple sectors supported with leadership from the highest levels of government is an effective approach for shaping a program of resilient investments and is promising for implementation effectiveness and anticipated scale up.
- Mandatory and systematically documented stakeholder engagement-built ownership and support for the PPCR planning and investment selection process. PPCR built new pathways in some countries and enhanced existing structures in others; already enhancing positive relationships during implementation of specific investments.

Strategic partnerships for catalyzing additional finance and supporting transformative actions.

- The expectation of linked and leveraged funds at scale through formal MDB collaboration and Phase 2 grants and concessional loans was pivotal for country buy-in. Planning grants alone would have been insufficient. Both linked investments and leveraged investments were instrumental in advancing and catalyzing countries resilience pathways.
- Many PPCR investment plans have fostered transformational investments and policy reforms going beyond Phase 2 investment funds. They have advanced partnering with bilateral and country-based funding sources, spurred policy reforms, and furthered the incorporation of resilience at the national, regional, and local levels.

Flexibility and resilience-focused approach to project implementation for enhancing the climate resilience of project beneficiaries through responding to the needs of vulnerable communities.

- Fully recognizing the context-specific nature of climate vulnerability and the importance of community engagement in building climate resilience, PPCR has a sharp focus on the needs of the beneficiaries throughout investment design and delivery. With its highly participatory programming approach and flexibility in finance, PPCR enables periodic assessment of project implementation and adjustments to project scope and budget allocation. For example, a road project initially focusing on building new roads may later include rehabilitating feeder roads for villages to enable access to newly built roads. Additional assistance may be provided to vulnerable communities to establish new on-farm

processing facilities in light of improved access to irrigation or markets as a result of investments in irrigation schemes or major transport infrastructure.

Leveraging effective monitoring and reporting and maximizing learning.

- The simplified set of five core resilience indicators for PPCR monitoring and reporting is seen as a practical and viable framework. Countries recognize the benefits of tracking overall national progress toward resilient development.
- Dedicated learning and exchange fora among PPCR pilot countries have proven especially valuable. They help build technical capacity and professional skills of participants while facilitating the sharing of practical experiences and engendering South-South learning.
- As the longest standing, large-scale adaptation-focused program, PPCR has conducted a wide range of knowledge activities, such as the Knowledge for Resilience series, and has been actively engaged in the global discourse on effective and efficient investment in climate resilience and adaptation.

Source: Based on the findings of the Evaluation and Synthesis of Evidence of Transformational Change in the CIF, Key Lessons from the PPCR report and the PPCR Knowledge for Resilience Series on Hydromet, Infrastructure, Local Stakeholder Engagement, Disaster Risk Management (forthcoming).

2 Concept Proposal

2.1 The proposed CIF Climate Resilience Program can play a unique role in catalyzing scaled-up support for adaptation through MDBs.

40. **COP27 called for transformational approaches to climate adaptation.** The Sharm-el Sheikh Implementation Plan, adopted at COP 27, notes with serious concern the existing gap between current levels of adaptation and the levels needed to respond to the increasing climate risk and calls for adopting a transformational approach to adaptation. It also calls on the MDBs to reform and scale up climate finance and offer new channels and instruments that are fit for the purpose of adequately addressing the global climate emergency[46]. Furthermore, there is a specific request for international financial institutions to share how they might enhance access to and/or the speed, scope and scale of availability of finance for activities relevant to addressing loss and damage.

41. **To respond to the challenges, there is a need to step up transformational approaches for building climate resilience.** CIF proposes to establish a new Climate Resilience Program (CRP)to focus on transformational approaches. CRP will build on the direct experience of PPCR to help developing countries reduce climate risk through adaptation and manage

[46] UNFCC (2022), Sharm el-Sheikh Implementation Plan

residual climate risk, thereby covering the entire risk management spectrum. Presented as a key MDB contribution to the call from the global community to scale up climate action, CRP can demonstrate the critical role MDBs can play together to support developing countries in strengthening their understanding of climate risk and limits to adaptation, and to inform decision making for resilient development. Through the CRP, MDBs can strengthen systems for adaptation investments in order to align wider financial flows toward adaptation, develop adaptation investment pipelines to scale up financing for targeted climate adaptation investments, and finance targeted adapatation investments. The CRP can also improve systems for residual risk management through innovative policies, financial instruments and products and thereby help developing countries prepare to access funding from the proposed new loss and damage fund, once established. All these areas are critical for scaling up investments in resilience.

42. **CRP can support countries to build resilience at scale through integrated approaches.** Not only will CRP demonstrate an integrated approach that supports countries in advancing transformational adaptation and managing residual climate risk, it will also build on the successful CIF business model (country-led, multi-MDB, programmatic and predictable concessional financing at scale along with inclusive stakeholder participation) and lessons learned from PPCR implementation. CRP will also use the MDB system to deliver resilience investments (sovereign and non-sovereign) at scale and employ a range of financial instruments and modalities. Finally, it will influence the wider in-country financial system to scale up and accelerate support for resilience building interventions by strengthening metrics and in-country planning and investment frameworks.

43. **CRP can influence and leverage MDB financing for adaptation, thereby demonstrating scale.** The MDBs play a critical role in scaling up financing urgently needed for climate resilience. Between 2015 and 2021, the six MDBs that are part of CIF jointly provided roughly USD 60 billion for climate adaptation. They have also committed to align their operations with the goals of the Paris Agreement and to scale up support for climate adaptation and resilience, as described in Box 2. This includes strengthening the resilience of development projects, financing projects with shared objectives of development and resilience, and proactively supporting client countries to identify, design, and finance projects dedicated to enabling adaptation. In parallel, MDBs have also been active in managing residual disaster risk, especially in the context of disaster risk financing. They provide timely and predictable support for post-disaster recovery and reconstruction to deal with damage and losses from climate-related disasters. Given the increasing intensity of the climate crisis, it is critical that

the share of MDB financing for adaptation increases in the coming years. This will require MDBs to align their pipeline with adaptation investments identified by countries in NDCs and NAPs, work closely with other global climate funds, and scale up the provision of concessional financing for supporting such projects. To achieve this, MDBs need to access concessional sources of climate finance, including through CRP. The proposed CRP will provide a unique opportunity to support MDBs in aligning their pipelines and financial flows to the adaptation needs identified by countries. Further, it will facilitate strong partnerships among MDBs and between MDBs and global climate funds for strengthening the enabling environment for climate adaptation, co-identifying priority adaptation investments, and mobilizing institutional support and resources toward common priorities. CRP will enable MDBs to go beyond what they would otherwise do in isolation with their own resources.

Box 2: MDB commitments and approaches for scaling up climate adaptation and resilience

African Development Bank (AfDB): AfDB has prioritized adaptation to climate change, setting ambitious targets and focusing on the development of financing instruments that will address the imbalance between adaptation and mitigation funding. AfDB's climate finance has increased from 9 percent in 2016 to 45 percent in 2022. In 2018, AfDB exceeded 50 percent of its climate finance allocated for adaptation and this has steadily increased to reach 63 percent (USD 2.2 billion) of climate financing in 2022. It has a target of mobilizing USD 12.5 billion for adaptation between 2020 and 2025. In 2021, the AfDB created the African Adaptation Acceleration Program in partnership with the Global Center for Adaptation, with the goal of doubling Africa's access to climate adaptation finance to USD 25 billion by 2025. AfDB recently created the Climate Action Window, a funding window within the 16th replenishment of AfDB's African Development Fund (ADF). The window has mobilized USD 430 million of a target USD 4 billion from state and non-state actors via an open replenishment process. These funds will be allocated 75 percent to adaptation 15 percent to mitigation and 10 percent for technical assistance in the 37 ADF countries. AfDB is also pioneering the Adaptation Benefits Mechanism to channel private sector finance into adaptation activities and creating the African Green Financing Facilities Fund to support the creation of national climate change facilities and green banks. They will be critical partners in co-financing adaptation and resilience activities.

Asian Development Bank (ADB): Strengthening resilience is at the heart of ADB's Strategy 2030. It has set an ambition of providing USD 100 billion of climate finance between 2019–2030, of which around USD 34 billion will be for climate adaptation and resilience. To achieve this goal, ADB has adopted a three-pronged approach. First, it will increase upstream engagement with countries on adaptation, including in the NAP development process. Second, it will increase financing for dedicated adaptation projects, and third, it will strengthen knowledge, capacity, and partnerships on adaptation. This comprehensive approach is showing results, with adaptation finance for 2022 reaching 38 percent% of total climate finance. Under the 13th replenishment of ADB's Asian Development Fund (ADF), ADB established a thematic pool that includes

providing additional grant resources to poor and vulnerable countries for projects that have the main objective or dedicated output on climate change adaptation and disaster risk reduction.

European Bank for Reconstruction and Development (EBRD): EBRD's green economy transition (GET) approach aims to help its countries of operations accelerate their green transition by evolving from a mainstreaming to a systemic approach. By 2025, more than half of EBRD's annual investment should qualify as GET (target already achieved in 2021 and 2022). Moreover, EBRD's activities and support are fully aligned with the Paris Agreement starting from January 2023. It has supported over 200 adaptation projects by investing more than EUR 1,7 billion over the past five years. To further scale-up its adaptation support, EBRD has developed a **Climate Adaptation Action Plan for 2023–2025** that aims to accelerate adaptation mainstreaming and policy integration, reinforce partnerships and capacity building for bigger impact, and target proactive business development and private sector mobilization. To achieve these, EBRD combines policy support, technical assistance, and investment support channeled through both direct and intermediated finance tools.

Inter-American Development Bank (IDB): IDB Group's total climate finance in 2022 was USD 7.8 billion. This included a record USD 5.9 billion for the public sector: 43 percent of the total volume approved by IDB. Ninety-four percent of public sector loans incorporated climate action, and 98 percent of projects facing climate risk included measures on climate resilience. IDB helped support the inclusion of adaptation, climate resilience, and decarbonization policies across 16 countries in 2022. This included, for example, analysis of physical climate risks across the transport network of a country and providing technical assistance and policy loans to help countries like Chile, Uruguay, Costa Rica, Barbados, Bahamas, and Colombia navigate the political economy complexities of adaptation and just transition challenges.

IDB is also implementing the Contingent Credit Facility for natural disaster emergencies to provide technical assistance and contingent loans that can be delivered quickly during natural disasters. These loans include strong incentives to reduce risks through comprehensive natural disaster risk management and are disbursed after IDB has verified the type, location, and intensity of a disaster. They are supported by incorporating disaster risk clauses in loan contracts that allow deferred principal repayments for two years. The deferred payments enable the country to cover public expenses at its discretion.

International Finance Corporation (IFC): As part of the World Bank Group's Climate Change Action Plan (CCAP) for 2021–2025, IFC recognizes that adaptation is critical and seeks to increase its share of climate finance going toward adaptation and resilience activities that reduce vulnerability. IFC is stepping up efforts to identify private sector investment opportunities in this area and is focusing its efforts on five key systems responsible for over 90 percent of global greenhouse gas emissions: energy; agriculture, food, water and land; cities; transport; and manufacturing. These systems are the backbone of economies, so making them more sustainable, resilient, and inclusive is critical. To boost private sector investment in climate adaptation actions, IFC is also developing innovative green finance solutions that will increase the size of the market. Additionally, IFC is working with MIGA and the World Bank to help countries create an improved enabling environment for private sector engagement in adaptation and to identify countries in which investment-ready adaptation projects already exist and private co-financing may be feasible given appropriate project design changes.

World Bank: In 2021, the World Bank Group launched its second CCAP for 2021–2025. It aims to advance the climate change aspects of the Bank Group's green, resilient, and inclusive development (GRID) approach, which pursues poverty eradication and shared prosperity with a sustainability lens. The World Bank has set a target of deploying 35 percent of its financing in support of GRID during this period. It has also made several corporate commitments, including requiring climate and disaster risk screening for all IDA/IBRD operations; assessing all projects for climate co-benefits (CCB), with all projects with over 20 percent CCB required to incorporate at least one climate indicator; working toward IBRD CCB reaching at least 30 percent on average during FY20–23, with ambition maintained or increasing to FY30; and IDA CCB reaching at least 30 percent on average over FY21–23, with half supporting adaptation.

44. **CRP can provide countries with predictable and flexible concessional finance for both upstream and downstream interventions.** Concessional finance is critical to help developing countries scale up investments in resilience. For the poorest countries, concessional finance is critical to undertake transformational adaptation measures such as managed retreat from the coastline and scaling up nature-based solutions. Concessional finance is equally critical for creditworthy low-income countries and middle-income countries that may not have easy access to concessional finance but face high climate risk. Concessional finance can help them undertake strategic adaptation investments that can unlock opportunities for private sector investments in adaptation. CRP will enable scaled up adaptation in developing countries by deploying concessional finance for both upstream interventions—to support the creation of an enabling environment in partnership with key stakeholders such as the global climate funds and the preparation of an adaptation investment strategy—and downstream investments—to help overcome barriers, close the financing and information gap, and cover higher up-front costs for transformational investments. The predictability of large-scale concessional financing will be particularly helpful in the current context of pandemic recovery and increasing debt.

45. **Although CIF has advanced mainstreaming of climate resilience considerations in other programs, a dedicated program on adaptation and resilience is still needed.** Since its inception, CIF has promoted an integrated approach that aims to facilitate systems-level climate solutions, including piloting this approach for building climate resilience specifically in the PPCR.This approach is embedded across CIF's new strategic programs, irrespective of their thematic focus. This includes climate risk and vulnerability being one of the factors in selecting countries for the new strategic programs, integrating resilience considerations in the investment planning process of respective programs, integrating resilience solutions in different low-carbon-related investments, and measuring, tracking, and reporting on resilience outcomes, where feasible. For example, the Renewable Energy Integration Program

identifies the need to strengthen the climate resilience of power generation, transmission, and distribution systems against extreme weather conditions in a changing climate. Similarly, the Industry Decarbonization Program promotes a systems-level approach to identifying sectors that are exposed to climate change impacts in the context of low-carbon transition. In terms of dedicated climate adaptation financing, however, this approach is not likely to meet the volume in demand—and needed—for low-income and climate vulnerable countries.

46. **While a sector-specific approach is important, it is not sufficient to increase dedicated transformational investments in climate resilience at the scale, volume of adaptation finance, and urgency needed to adequately address severely increasing climate risks.** Climate resilience mainstreaming falls short of systematically addressing root causes of climate vulnerability and exposure, since investments are primarily catalyzed through specific sectoral and thematic incentive structures. The proposed CRP would be much better positioned to drive transformational investements in climate adaptation at scale by focusing on delivering finance through a country-driven programmatic approach embedded within the wider countyr fiscal system. This entails strengthening upstream planning processes and supporting the targeted adaptation investments that are required to directly address the primary adaptation challenges vulnerable countries are facing.

47. **CRP can complement CIF's new strategic programs to respond to low-income and climate vulnerable countries' unmet demand for increased adaptation financing.** To deliver transformative results, CRP will build on and complement CIF's new strategic programs, especially the Nature, People and Climate Investment Program (NPC) and the Smart Cities Program. NPC is focused on deploying nature-based solutions that recognize the interdependence among land use, climate-change mitigation and adaptation, and the improvement of sources of livelihoods of rural communities and Indigenous Peoples. CRP will complement NPC by supporting adaptation and climate resilience approaches beyond nature-based solutions that would reduce the impact of climate change on poor and marginalized rural communities. These include investments in social dimensions of climate change. Strengthening health and education systems and building infrastructures and facilities targeted at building resilience in these sectors can deliver transformational impacts. Adopting pioneering adaptation technologies and digital solutions for improved natural resources management can also be covered under CRP. The Smart Cities Program will cover small and medium-sized cities and those considered rapidly growing. It will support the full cycle of climate-smart urban investments, from diagnostics, planning, and identifying priority programs and projects, to project preparation, implementation, and monitoring. This

program has a sub-national scope, with the city government driving the planning and implementation process. Within urban settings, CRP will complement the Smart Cities Program by targeting particularly acute urban resilience challenges such as heat stress and urban flooding. In addition, CRP could help leverage the "vertical" integration of national-regional-local (including city level) resilience investment planning and delivery.

48. **CRP can complement adaptation support provided by other global climate funds through the comparative advantage of CIF's programmatic approach and its demonstrated ability to deliver on climate resilience.** The global climate funds, including the Green Climate Fund, Adaptation Fund, and Global Environment Facility, actively support countries in undertaking climate adaptation projects. CRP will complement such support by focusing on a programmatic approach that will allow countries to work closely with different financial institutions, including MDBs and climate funds to develop adaptation investment plans that can form the basis of adaptation support (of various scales and degrees of importance) by different partners, including the global climate funds and MDBs (through CRP and beyond). This can ensure coherence and synergy between different investments supported by MDBs and global climate funds, and thereby contribute to reducing the fragmentation of the global climate finance architecture for adaptation. Being led by the MDB, will also allow the CRP to embed financing for adaptation within the wider country fiscal systems, which is a unique advantage of the CIF compared to other global climate funds.

49. **CRP will promote innovative ways of supporting local adaptation priorities.** Recognizing the gap in financing local adaptation and the fact that limited adaptation measures address underlying drivers of vulnerability, CRP will put greater focus on pro-poor adaptation solutions that are designed and implemented inclusively. Adaptation activities in the context of social sectors and community-led approaches for adaptation will be supported. So too, special attention will be given to adaptation projects in fragile and coflicted countries.

50. **CRP will have a large focus on promoting gender responsive adaptation solutions.** Recognizing that while women at the local level often play a key role in driving resilience solutions but do not often have access to resources needed, the CRP will ensure that all components of the program systematically mainstreams gender considerations. In addition, it will provide dedicated funds for women-led solutions will help demonstrate the role women play as agents of change in building resilience.

51. **CRP will engage with the private sector in all stages.** Starting from upstream planning to downstream investments, CRP will give special attention to engaging the private sector,

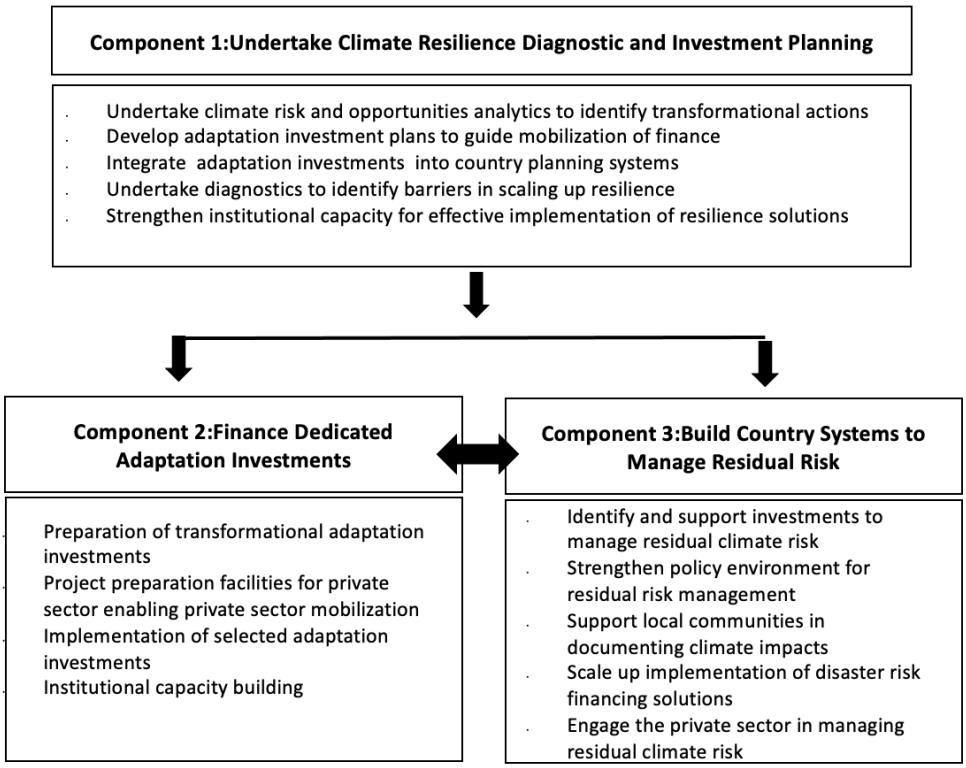
including micro and small enterprises, microfinance institutions, agribusinesses, and the insurance industry, among others. This includes engagement of the private sector in undertaking climate risk analytics, in developing adaptation investment plans, in building capacity to mainstream climate risk considerations in all investment decisions and in developing tools and approaches that can reduce transaction cost for the private sector adaptation actions. CRP will also support diagnostics to identify barriers faced by the private sector in scaling up adaptation, provide concessional financing for non-sovereign adaptation projects, design and implement innovative blended finance instruments to crowd in private capital for adaptation, and scale up the involvement of the private sector through disaster risk insurance products. Country-level investment strategy will include a specific section dedicated to the analysis of private sector and sub-sovereign investment mobilization. By working through MDB's private sector operations and business models and combining policy support and technical assistance with investments will help overcome issues related to engaging the private sector.

52. **CRP will demonstrate partnerships with key global initiatives and partners on adaptatoin.** CRP will engage with different global initiatives on adaptation and resilience to foster strategic partnerships, share knowledge and best practices, and identify joint solutions. These include the Coalition of Finance Ministers on Climate Change, the UN Secretary General-led initiative on Adaptation Pipeline Accelerator, the Africa Adaptation Accelerator Program, the Global Center on Adaptatoin and the Global Shield Against Climate Risk, among others. Such partnerships will help mobilize institutional and political support for scaling up climate adaptation and enable a coordinated and effective mobilization of resources for countries.

2.2 Longer-term and strategic interventions will scale up investments in resilience through the CRP.

53. **CRP will include three components**. In most cases, component 1 will be undertaken first to inform the scope of components 2 and 3, which can be undertaken concurrently or on an as-needed basis depending on the needs and priorities of each country (see Figure 2). Together, the three components will demonstrate the transformative approaches needed to scale up investments in resilience building in countries. CRP implementation in most countries will likely cover a period of 8–10 years, but some countries are expected to show results in a shorter time frame. Others may require more support.

Figure 2: Climate Resilience Program



54. **Component 1: Undertake climate resilience diagnostics and investment planning.** This component will support countries in the following areas:

a. Undertake/strengthen climate risk and opportunities analytics to enable countries to identify and prioritize transformational actions for building resilience. Technical assistance will be provided to undertake or strengthen existing climate risk and opportunities analytics, which will promote an understanding of longer-term risks and decision making under uncertainties. Such analytics will become the basis to identify adaptation and its limits across systems. Depending on each country's context, analytics can be undertaken for a wider economy, specific systems (such as urban, agriculture, transport), and/or geographical hotspots. They will emphasize understanding hazards, along with identifying factors that contribute to increasing exposure and vulnerabilities, through social inclusion and gender assesments. The analytics will help identify barriers—policy, regulatory, incentive structure, institutional capacity—that may limit the scale up and implementation of adaptation investments, especially in the context of private sector engagement. They will also address barriers that impede effective implementation of adaptation solutions at the local level, including barriers related to the participation of women, marginalized

communities and socially excluded groups in adaptation-related decision making or lack of capacity of institutions, especially in fragile and conflict affected countries. The analytics will be undertaken following inclusive processes, including the involvement of different government agencies, local governments, women's groups, vulnerable populations, MDBs, and the private sector, as appropriate. They will build on existing NAPs and NDCs and other relevant plans/strategie/communications, as well as assessments undertaken by governments and/or development partners and global climate funds. Depending on the need, the analytics will be tailored to meet the capacity constraints of countries. Such analytics will also be used by MDBs to inform their respective country partnership strategies and programming, including policy-related support.

b. **Develop a socially inclusive adaptation investment strategy to guide transformational investments in adaptation and mobilization of finance.** Building on risk and opportunity analytics and adaptation priorities identified by countries in their NDCs , NAPs or other relevant climate plans, technical assistance will be provided to help countries develop (or strengthen where existing, such as investment plans developed under SPCR that remain unfunded) an adaptation investment strategy for specific themes, sectors, or areas. The strategy will identify adaptation target and, country impact indicators and priorities to meet such targets. This is critical to overcome barriers related to adaptation metrics and which often stops countries from mobilizing investments for adaptation. It will also identify, wherever possible, a suite of transformational adaptation investments needed to achieve such targets, including investments that focus on the adaptation needs of the poor and vulnerable populations, including women. A key focus of the adaptation investment strategy will be to identify potential financing sources for the priority adaptation investments, including analysis on what financing sources might be the most appropriate for which type of adaptation projects. Where needed, such as in the case of fragile and conflict affected countries, the process for developing the strategy will be tailored to meet specifc needs and capacity constraints. The transformational potential of the investments will be assessed against following criteria:

    - Relevance: alignment with longer-term climate risk issues and adaptation priorities identified by the country in its NDCs, NAPs, or equivalent documents.
    - Systemic change: objective of building resilience at a systems level, including through interventions that address the root causes of vulnerability.

- Scale: deliver contextually large-scale impacts, including strategies for enabling subsequent scale up or replication.
- Potential for private sector mobilization
- Sustainability: demonstrate long-term sustainability after CIF's concessional finance support is over.
- Social inclusion: explicit targeting of socially excluded groups and women and girls, as well as groups with heightened climate vulnerabilities

The investment strategy and the initially identified investments will form the basis of developing a robust pipeline of adaptation investments for governments, MDBs, and other partners, such as global climate funds, and to identify priorities for strengthening country systems to manage residual climate risk. Identified priorities will give private and sub-sovereign organizations a clear steer on investments that can expect to receive public support. Such a process will help countries articulate their long-term and programmatic financing needs for adaptation and mobilize resources from a range of sources. A consultative process that brings potential financing partners together, including the domestic private sector, MDBs, and global climate funds, will be adopted to develop (or strengthen where existing) the adaptation investment strategy. Compared to past work undertaken by PPCR, CRP's focus will be to develop the investment strategy based on the priorities identified by countries in their recent NDCs and NAPs and closely aligned with the readiness support provided by global climate funds. This will help operationalize these climate plans so they can have impacts beyond influencing MDB portfolios. Moreover, a consultative process that MDBs and global climate funds together in developing the strategy will help reduce the fragmentation in the global climate finance architecture for adaptation.

c. **Integrate adaptation investment plans into country investment planning systems linked to wider public investment management systems.** To ensure the sustainability and financing of investments identified in the adaptation investment plan, technical assistance will be provided to embed the plans within the country's wider planning and budgeting systems, such as medium-term development plans and expenditure framework and annual plans and budgets. Country planning and budgeting systems will be strengthened to track the implementation of adaptation investments identified in the plan. Close collaboration with Ministries of Finance, Planning and Economy will ensure adaptation investments that require international support are prioritized within respective MDBs'

country programs. This will ensure that the MDBs align their adaptation pipeline with the country's adaptation investment plans, consequently aligning MDB financial flows toward building climate resilience. A focus on country investment planning system will also help the global climate funds by ensuring that the potential projects they plan to finance from the country investment plans are embedded within the wider country planning and budgeting system.

d. **Support countries to develop or enhance gender-resonsive national climate adaptation monitoring and evaluation systems.** CRP will provide technical assistance support for countries to institutionalize the tracking of climate risks and adaptation actions, such as progress on NAPs and NDCs indicators and targets, in an inclusive and multi-sectoral manner. Special assistance may be needed for countries with limited capacity, such as fragile and conflict affected countries.

55. **The implementation of activities under component 1 is expected to take one to two years for countries to complete, depending on the level of existing gaps and issues they face.** Where possible, it will be important to fast-track implementation of the activities under component 1 and build on existing work in countries by MDBs or other development partners, since it will form the basis of investments to be financed under components 2 and 3. Targeted technical assistance for capacity building can also be provided to enhance the capacities of the government to strengthen institutions that can carry out these activities beyond the CRP period.

56. Activities under component 1 will be undertaken by the countries jointly with the MDBs and in close collaboration with global climate funds, to ensure cooperation among MDBs,and between MDBs and the global climate funds enable synergies in supporting priorities identified by countries, and demonstrate climate actions at scale, including through innovative approaches.

57. **Component 2: Finance dedicated adaptation investments that enable transformation.** Based on the priorities identified in the country adaptation investment plans developed under component 1, this component will focus on the following activities:

a. **Support preparation of transformational adaptation investments to be financed by MDBs.** Such investments will primarily include activities that are categorized as Type 2 or Type 3 as per joint-MDB methodology for climate adaptation finance tracking (see Box 3). Technical assistance resources will be provided for the preparation of potential adaptation investment projects. This will include developing the climate rationale based

on robust climate risk assessment of the system in which the project will be located, undertaking economic appraisal of transformational adaptation measures, as well as social impacts analysis, and selecting adaptation outcome and output metrics and other necessary due diligence. The appraisal can also include necessary due diligence for investments that follow other financing modalities, such as policy-based lending, results-based financing, and/or intermediated financing. To ensure private sector engagement in adaptation projects, there might be a need to establish project preparation facilities. These can be standalone or be part of a larger facility that focuses on different aspects of private sector engagement areas identified by CRP. Efforts will also be made to help develop tools that **value** resilience benefits and thereby support in mobilizing financing, especially from the private sector for adaptation.

Box 3: Typology of adaptation activities

MDBs have jointly identified the following typology for adaptation activities:

Type 1. Activities that are adapted: Activities that integrate measures to manage physical climate risks and ensure that the project's intended objectives are realized despite these risks. These include adjustments or improvements required to ensure that the project performs well against experienced and anticipated impacts of climate change. Adaptation is not the primary objective of these activities.

Type 2. Activities that have shared objectives of adaptation and development: Activities that directly reduce physical climate risk and build the adaptive capacity of the system within which the activity takes place. These activities are typically identified based on a robust understanding of physical climate risks faced by the system within which the project takes place. These activities are adjusted to cope with experienced and anticipated impacts of climate change. Adaptation is one of the objectives of the activity.

Type 3. Activities that enable adaptation: Activities that contribute to reducing the underlying causes of vulnerability to climate change at the systemic level and/or removing knowledge, capacity, technological and other barriers to adaptation. This type of activity supports adaptation beyond its immediate scope by creating enabling conditions for policy and regulatory environment developments, physical or natural asset enhancements, capacity strengthening, technology developments, or knowledge enhancements. These activities are adjusted to cope with the experienced and anticipated impacts of climate change. Adaptation is the primary objective of the activity.

Source: MDBs Joint Methodology for Tracking Climate Adaptation Finance

b. Support implementation of priority adaptation investments. Concessional financing (loans, grants and results based payments) will be provided for the implementation of

MDB-financed adaptation projects, both sovereign and non-sovereign, selected from the adaptation investment plan. Priority will be given to projects that are both ambitious and transformational (including those that are small but have excellent demonstration effects and replicability) and where concessional climate finance is needed to overcome barriers. Box 4 provides illustrative examples of such projects. Further, such projects may include the following features:

- **Deploy a range of financial modalities to pursue adaptation.** The MDBs will deploy a range of financing modalities that are available to them for adaptation projects. This includes modalities that provide opportunities for supporting policy reforms needed for enabling gender-responsive adaptation, modalities that allow aggregating small-scale climate adaptation investments to create impact, and modalities to engage the private sector for adaptation. The selection of modalities will be guided by climate risk and opportunity analytics and diagnostics of policy and regulatory barriers undertaken in component 1. The MDBs will also support new and existing approaches that have the potential to drive markets. Examples include standardized tools, green procurement and associated policy specifications, market incentivization structures, and aggregation mechanisms.
- **Provide grants to pro-poor resilience solutions and/or demonstrate new technologiesor frontier approaches for adaptation.** For the use of grant resources, priority will be given to investments that have the potential to directly respond to the adaptation needs of the poor and vulnerable populations, such as through health, education, vocational training, social protection, livelihoods, rural development, and urban informal settlements upgrade; while also ensuring direct roles for these populations in decision making and implementation arrangements. Grants can also be used to demonstrate the use of a new technology or approach for adaptation, such as ecosystem-based approaches, and for overcoming market failures that prevent private sector action.
- **Provide grants for enabling the uptake of women-led solutions for adaptation.** Grants will be provided for projects or project components that promote adaptation solutions targeted at building the capacity, knowledge, and agency of women. This includes women engaged in agriculture and rural livelihoods, micro and small enterprises, and informal livelihoods. Where appropriate, such grants will demonstrate partnerships between grassroots women's groups and respective

government agencies and the private sector, supporting women leadership in adaptation.

- **Provide payments for results.** Contracts for the sale of "Certified Adaptation Benefits" (delivered through mechanisms such as the Adaptation Benefits Mechanism) or other kinds of outputs from adaptation projects, act as collateral and enable project developers to access debt capital markets. Once project developers can derive an income from an adaptation project, a wide range of financing insturments become available.

Box 4: Illustrative examples of adaptation projects

A **drought risk management** project can help agricultural workers to adapt farming practices to projected changes in climate risk through research, development, and commercialization of drought-resilient crop varieties, crop and/or livelihood diversification, and use of advanced technology for improving water efficiency in irrigation through modernization of irrigation infrastructure as part of an integrated water resources management plan that accounts for future climate change risks (on both supply and demand). Project activities are intended to achieve the outcome of building the climate resilience of the farmers for managing drought risk.

A city **flood-risk management** project can reduce expected losses from larger and/or more frequent floods due to climate change. It might include a combination of activities—revitalizing natural drainage systems using nature-based solutions, implementing risk-sensitive land use management to steer development away from hazard-prone areas, strengthening flood early warning systems and ensuring access to such warnings by poor informal settlements, and improving city disaster contingency planning. Project activities are intended to achieve the outcome of reducing the social and economic impacts faced by the city from floods.

An **agriculture** project using direct or intermediated finance can build the resilience of small-scale agricultural producers against current and future climate risks through improved digital weather and climate advisory services (mobile apps, radio, and online platforms). Activities may include strengthening the capacity of agricultural extension workers to provide climate advice for changing risks to farmers, especially women farmers, and supporting uptake of climate-resilient crops or resilient farming practices, including in new production areas due to climatic shifts. Building climate resilience is the primary objective of the project.

A **health** care system project can strengthen the institutional capacity (from national to local) of the health sector to predict, detect, and reduce the spread of climate-sensitive vector-borne disease anticipated due to changing climate patterns. It can also strengthen early warning systems in disease surveillance and build capacity and invest in response system planning and implementation. Such measures are intended to

achieve the outcome of improving the health and productivity of the nation, despite changes in prevalence and range of current and new diseases under changing climate and weather patterns.

A **coastal resilience** project can support a range of solutions to help the coastal area adapt to accelerated sea level rise. This includes restoring existing or creating new forelands, such as mangroves that offer protection against flooding, shore nourishment, protection and strengthening of dune belt; combining soft and hard defenses; incorporating projected sea level rise in the periodic maintenance scheme of coastal infrastructure works; and making spatial reservations for future coastal defenses. Such measures are intended to achieve an outcome of coastal resilience and promote flexibility, by keeping options open for future actions to avoid creating path dependencies and lock-in.

A **social protection** project can be designed based on a systemwide assessment of climate risks. It can include adaptive features that would allow the social protection system to scale up after climate-related shocks and provide immediate support to poor and vulnerable households, establish better linkage with early warning systems, and strengthen the capacity of program beneficiaries on resilient livelihood measures. The intended outcome of the project is to improve the well-being of poor and vulnerable households against a background of an increase in climate shocks.

A **governance** project can support implementation of locally-led climate adaptation measures as part of wider decentralization reforms. Such reforms can promote bottom-up and participatory processes for adaptation planning and budgeting, strengthen the role of local communities in adaptation decision making, and provide additional financing as part of fiscal transfers to encourage sub-national governments to undertake climate adaptation investments.

Source: Asian Development Bank. 2022. Guidance for Developing Projects that Support Climate Adaptation and Resilience Outcome

c. Strengthen institutional capacity for effective implementation and monitoring of resilience solutions. Targeted technical assistance may be provided along with investment projects to strengthen institutional capacity for the implementation and monitoring of adaptation measures. This support can help update national standards and codes for resilient infrastructure, develop regulations for implementation and enforcement of nature-based solutions, and update procurement procedures to engage local communities in small scale resilience activities at the local level.

58. **Component 3: Build country systems to manage residual climate risk.** Based on the understanding of climate risk and adaptation limits identified in component 1, this component will support countries to identify gender-responsive needs and improve systems to manage residual climate risk. Such improved systems will help countries to be better prepared to access funding from the proposed new loss and damage fund, once established. The component will provide support for the following activities:

59. **Identify and support investments to manage residual climate risk.** Provide technical assistance to identify technical, institutional, and financial needs for managing residual climate risk, including identifying the needs of different stakeholders, like local governments, youth, women, poor households, populations residing in vulnerable geographies, and Indigenous population. Such needs may include strengthening disaster preparedness capacity of local government, strengthening end-to-end early warning systems, and financing to deal with disasters. The identification of needs will also help the countries to access other potential sources of funding in the future, including the proposed new fund on loss and damage. CRP will provide concessional finance (loans and grants) to implement such investments (packaged with investments under component 2, where relevant) that will help manage residual climate risk and, thereby, reduce climate-related losses and damages. Grants will only be provided for interventions that generate public goods and/or targets support for the poorest and socially excluded populations. CRP will not fund any activities in the context of post-disaster recovery and reconstruction.

60. **Strengthen policy environment for residual risk management.** CRP will provide technical assistance and/or investments (such as policy-based loans) to strengthen the enabling environment for better responding to severe and long-lasting climate impacts through policies, regulations, and legislation. Examples include strengthening policies on migration in the context of climate-related risks and its linkages with social protection systems and early warning systems. Having such strengthened enabling environment will help the countries to access other potential sources of funding for implementation, such as through the proposed new fund on loss and damage, where applicable.

61. **Support local communities in documenting climate impacts, resilience solutions and monitoring adaptation mechanisms.** CRP will provide grant financing to help vulnerable communities document the impacts of climate risk, capture and transfer indigenous practices that are at risks from climate impacts, implement, and monitor small-scale measures to minimize climate impacts of both slow and rapid onset events. Findings of such community-led interventions will be shared with governments to find opportunities for scaling up.

62. **Scale up implementation of disaster risk financing.** In line with the priorities identified in the Sendai Framework for Disaster Risk Reduction 2015-2030, the CRP will provide technical assistance and concessional financing (loans) to support the design and piloting or scale up of innovative disaster risk financing solutions, including insurance products, to help respond to extreme events.

63. **Engage the private sector in managing residual climate risk.** Working with private sector companies will help increase understanding of their position in national-level loss and damage assessments. It will also inform loss and damage assessments with analysis of second-order impacts of private company loss and damage on community resilience. CRP will support micro and small enterprises in strengthening business continuity planning and engaging in disaster risk financing solutions.

64. **Gender will be a key focus of all three components of the CRP.** This includes ensuring (i) gender considerations are integrated in the upstream diagnostics work and gender related adaptation needs are prioritized in the adaptation investment strategies in component 1; (ii) ensuring all investments being financed as part of component 2 mainstream gender considerations, and where appropriate identifies and supports investments with women as key beneficiary, such as in health, education and social protection programs; and (iii) institutions, policies and products for residual risk management adopts gender-responsive features. These activities will be undertaken in close collaboration with a range of stakeholders, including national machineries for women's affair, civil society oragnizations and grassroot women's groups. Having a strong focus on gender will allow demonstrating the key role that women, especially women from vulnerable communities can play as agents of change in building resilience.

65. **Focusing on the three components will allow the CRP to provide comprehensive support to developing countries and complement other global climate funds.** A combination of upstream and downstream support provided through the three proposed components of the CRP, will allow CIF partner MDBs to provide comprehensive support to developing countries. While elements of such support are also being provided by other global climate funds (as shown in Table 1), the CRP will proactively partner with the global climate funds, especially under component 1. Leveraging the access of CIF partner MDBs to national development financing architecture, support under the CRP would aim to promote coherence with other global climate funds in upstream planning, and for identification of downstream investments by different partners and thereby ensure that the support is programmatic and at scale, and responds to the needs of the countries.

Table 2: Overview of key features of global climate funds and the proposed CIF CRP								
Fund	**Nature of finance**		**Scope of support**					**Ready access to national development financing system and to influence wider investment pipeline**
	Grant	**Non-grant**	**Upstream support (enabling environment for investment planning and financing)**	**Support for Investment plans and strategies**	**Investment at scale (by focusing on adaptation programs)**	**Non-direct project finance modalities (e.g., policy- and results-based lending)**	**Capacity building and knowledge management**	
Adaptation Fund	√		√	√			√	
Global Environment Facility	√		√	√		√	√	
Green Climate Fund	√	√ (loans, guarantees and equity)	√ (readiness support)	√		√	√	
Proposed CIF Climate Resilience Program	√	√ (loans, guarantees and equity)	√ (through MDB in-country engagements)	√ (through investment plans)	√	√	√	√ (through MDBs)

3 Rationale for concessional finance through the Climate Investment Funds

3.1 High priority needs of developing countries need to be supported urgently and at scale.

67. **CIF's business model is particularly well suited to deliver CRP's objectives.** Increasing climate risk and the gap in the implementation of transformational adaptation measures at scale, create an urgent need and opportunities for the MDBs to scale up support for climate resilience and respond to the calls of the global community as outlined in the decision text of COP 26 and COP 27.

68. **CIF's programmatic approach will allow MDBs to shift their pipeline toward projects that explicitly deliver climate resilience outcomes**. The programmatic approach that has been prioritized by CIF offers a way to overcome barriers related to scaling up financing for a set of strategic, cohesive, and targeted adaptation projects and inititiatives to manage residual climate risk. It will enable mainstreaming adaptation within countries' investment planning processes and help them articulate their adaptation needs and mobilize necessary financing (beyond CIF) from other financial institutions including global climate funds. The approach will also inform MDBs' country programming processes and help shift their project pipelines, especially in climate-sensitive sectors, toward projects that explicitly deliver climate resilience outcomes.

69. **CIF enables partnerships in responding to country needs on resilience.** The adaptation needs are vast, and implementation remains patchy and fragmented. The MDB's must collaborate among themselves and with other financial institutions and global climate funds to provide coordinated support to countries in addressing their adaptation needs. CRP is deliberately designed to enable such coordination through activities under component 1, which require collaboration between MDBs, other financial institutions and global climate funds for joint development of adaptation investment strategies. Such plans will form the basis for identifying support under CRP for components 2 and 3, but may also form the basis for the global climate funds to identify potential investments for support. A similar coordinated approach is being promoted for mitigation under the Just Energy Transition Partnerships through country platforms. CRP will provide opportunities for enabling such partnerships in the context of adaptation and resilience.

70. **CRP fills a critical gap in pursuing transformational adaptation measures through social sectors.** To date, MDB's engagement in adaptation has been largely in the context of infrastructure projects. While important, there are equal needs to explore opportunities of building resilience through social sector projects, in the context of health, education, vocational training, social protection, and community-driven development. Such sectors typically provide larger opportunities for addressing underlying drivers of vulnerability, reducing social inequality, and addressing gender norms—all of which are critical for effective adaptation solutions. By prioritizing adaptation investments in the social sectors, CRP will help fill this gap.

71. **The certainty of concessional financing can incentivize the uptake of resilience actions.** Most developing countries currently have limited fiscal space as they deal with COVID-19 recovery. Thus, the availability of concessional financing will be critical to ensure that countries

continue to prioritize the implementation of resilience investments, especially investments that address longer-term risk and help unlock opportunities for putting development in a resilient trajectory. The certainty of available concessional resources offered by CRP, along with the MDB resources, can help to ensure that the adaptation priorities identified by the country move toward implementation. It can also help countries to further increase their ambition for scaling up adaptation investments.

72. **CRP concessional financing can help unlock opportunities for mobilizing private sector financing for adaptation.** Through concessional financing under component 2, CRP can help the potential of blended finance for adaptation investments and help overcome barriers to attract private sector capital at scale into transformational projects. CRP can help establish new, or strengthen existing, market drivers for adaptation. For example, financial and non-financial corporates are beginning to consider physical climate risk in their operations and portfolios, and CRP can help them develop the internal and external tools to measure risks, their commercial and financial implications, and adapt. CRP can also help develop public sector green procurement policy to specify adaptation solutions, which will drive private sector action. CRP can help develop standardized tools and approaches that can reduce transaction costs for private sector adaptation action while also creating the space for additional financing options.

73. **The CIF-MDB partnership can facilitate the dissemination of global good practices, while tailoring this knowledge to local circumstances.** MDBs can also use their convening power to foster strategic partnerships between governments, donor agencies, civil society, and the private sector on adaptation and resilience.

3.2 Concessional finance is needed to pursue transformational adaptation.

74. Concessional climate finance will be key to incentivizing countries to move from project-focused adaptation to a programmatic approach for adaptation. This shift is critical to achieve scale and prioritize transformational measures. CRP's upstream engagement through grants will support the country adaptation investment strategy process, which will help countries identify priority adaptation priorities and investments. Some can be financed through the government budget, but the rest will need financing mobilized in a programmatic manner among a broad range of potential partners, including the MDBs and the global climate funds. This engagement process will have a wider catalytic impact as it will help partners to identify solutions to address barriers in scaling up adaptation and recognize the unique role that each partner can play in achieving the country's adaptation priorities. Moreover, at an

individual project level, concessional finance (loans, grants and results based payments) will help overcome the barriers typically faced by adaptation projects in terms of delivering outcomes that are public goods or non-market or are in public-dominated sectors.

75. **Grants will be necessary to provide upstream support for adaptation investment planning and strategy and to support low-income, highly climate vulnerable countries.** Grant resources can help spearhead the undertaking of climate risk and opportunity analytics, preparation of adaptation investment strategies, and strengthening institutional capacity to mainstream adaptation investments into wider planning and budgeting processes, thereby promoting risk-informed decision making. In the absence of such support, countries will continue to prioritize and implement small-scale, ad-hoc adaptation measures that contribute to immediate benefits. The rationale for the use of grants is the strongest for low and middle income developing countries and for fragile and conflict affected countries that demonstrate a strong commitment to integrating climate risk considerations into development decision-making processes and that also typically have limited technical, institutional, and financial capacity.

76. **The degree of concessionality required at the investment stage will depend on the nature and severity of the barriers to be addressed for scaling up adaptation.** Concessional climate finance can help cover higher up-front costs and risks for more transformational adaptation projects. These can create the enabling environment for unlocking further opportunities for scaling up adaptation using domestic resources and private sector capital. Concessional finance can also support projects that aim at explicitly supporting adaptation needs of the poor and vulnerable populations who are on the frontlines of the climate crisis.

77. **Concessional financing including payments for results, will help to pilot new standards for risk management, green resilient procurement, and rewards for adaptation results (like the AfDB's Adaptation Benefits Mechanism).** This includes detailed work on approaches, methodologies, and certification processes. By using CIF funds as an anchor buyer for these services, innovative instruments can be developed and, if successful, replicated over time in emerging adaptation markets.

78. **Concessional financing will help to de-risk catalytic, first-of-their-kind private sector investments to support adaptation projects that may not otherwise be feasible for private investors**. This can help crowd private sector capital into markets where such financing is not currently available.

79. **Concessional financing can support interventions that produce co-benefits.** Resources with a concessional component are also expected to unlock opportunities for greater co-benefits, such as advancing climate mitigation, reducing biodiversity loss, addressing food security, and advancing gender equality.

3.3 CRP will continue innovating how CIF concessional finance is delivered for resilience.

80. **CRP will explore financing for adaptation and residual risk management.** CRP will build on lessons learned in PPCR and other climate resilience investments, including investments supported through various trust funds managed by individual MDBs to generate knowledge and experience that can help prepare the MDBs and the global financial community for the growing challenge of coping with climate change. In the process, it will help develop models and mechanisms to manage climate risks through insurance instruments, guarantees, and other concepts yet to be developed.

81. **The CIF-MDBs partnership will build on the lessons learned to date to push innovation.** To deliver climate resilience at scale, the availability of financing must match the growing needs of developing countries to manage climate risk and this financing must support interventions that look beyond the short-term to focus on multi-hazard and compound risk. Financing must address the root causes of climate exposure and vulnerability and be directly aligned with the need expressed by countries in their national plans. While MDBs have been pursuing such actions through their own resources and with support from different trust funds administered by individual MDBs, CRP concessional financing will be critical for the CIF MDBs to address these challenges together and support countries in unlocking further financing for adaptation. Its adaptation investment planning process will bring in all relevant financial institutions to support interventions and its innovative blended finance products will leverage private sector financing for adaptation. CRP will also demonstrate quality outcomes by focusing on multi-hazard approaches and pro-poor and gender-responsive solutions. Over the past 10 years, PPCR has helped MDBs to develop and test new products and approaches for adaptation. CRP will continue such an approach and further push the boundaries in providing programmatic support for resilience.

82. **CRP will support MDBs in using a range of financing modalities for adaptation to complement more traditional modes.** Recognizing that adaptation is a process and requires context-specific solutions and institutional capacity, it is important to explore the use of different financing modalities, beyond direct lending, to pursue adaptive management

approaches. The use of policy-based lending and results-based payments needs to be explored more for adaptation. Results-based payments have huge potential for the private sector and which needs to be further explored. Adaptation solutions are also needed at the local level that capture context-specific local issues (such as local hazards, gender norms, socio-economic characteristics of local communities, and power structure). The use of financing modalities that support locally driven solutions and aggregation of local solutions will need to be explored. CRP will pursue a range of financing modalities to achieve resilience outcomes.

4 Theory of change and expected outcomes

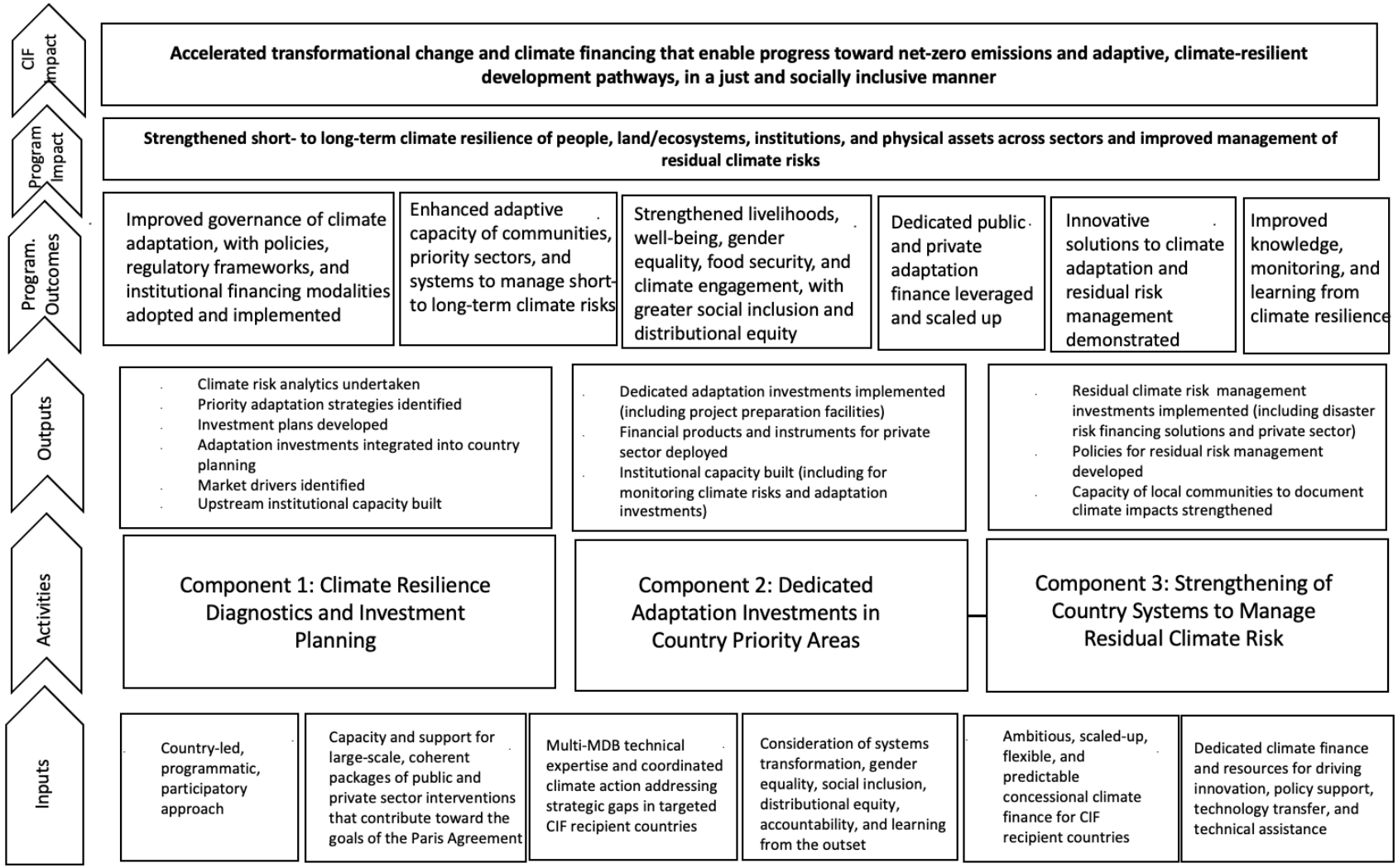
83. The CRP theory of change presented in Figure 3 illustrates how the program will achieve its intended objective and contribute toward CIF's overarching mission to accelerated transformational change and climate financing that enable progress toward net-zero emissions and adaptive, climate-resilient development pathways, in a just and socially inclusive manner

84. The results pathways developed for CRP's theory of change are based on the premise: "If countries are supported to develop a climate adaptation investment strategy that is based on understanding of long-term risk and resilience needs prioritized in NDCs and/or NAPs; where principles and priorities are identified to guide private sector and sub-sovereign action; and where identified public sector investments are embedded within wider country planning and budgeting systems; and are provided with predictable and adequate concessional financing to strengthen enabling environment and to undertake targeted investments in adaptation and residual risk management, then countries will be able to unlock opportunities for scaling up further investments in adaptation." This will contribute to the expected program impact: Strengthened short- to long-term resilience of people, land and ecosystems, institutions, and physical assets across sectors and improved management of residual climate risks.

85. CRP's initial theory of change was developed based on the assumptions that there is strong demand and interest among developing countries in adopting a programmatic approach for scaling up investments in resilience and willingness to partner with MDBs in pursuing such approach. It also assumes the inputs provided through the program are of good quality, context-specific, and represent a good return on the investment, and thatthe enabling conditions (such as political commitment to scale up investments in resilience) will remain adequate or improve over the time of program implementation.

86. The risks taken into consideration include the availability of concessional financing at a scale that would allow demonstrating the programmatic approach and lack of interest from the program stakeholders to collaborate in implementing different components.

Figure 3: Theory of Change



The Climate Investment Funds

The Climate Investment Funds (CIF) were established in 2008 to mobilize resources and trigger investments for low carbon, climate resilient development in select middle and low income countries. To date, 14 contributor countries have pledged funds to CIF that have been channeled for mitigation and adaptation interventions at an unprecedented scale in 72 recipient countries. The CIF is the largest active climate finance mechanism in the world.

THE CLIMATE INVESTMENT FUNDS

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