

Engaging the private sector in the context of climate change adaptation

1. Background & Summary

The UN Development Programme (UNDP)'s 2022-2026 Strategic Plan recognizes that bridging the multi-trillion dollar gap in development financing, including for climate adaptation, will require deepening our engagement and working more strategically with the private sector to scale investments required to meet countries' climate commitments, and UNDP's target to mobilize \$1trillion of private sector funds towards the SDGs by 2030. Responding to the COVID-19 crisis has strained public sector finances across the world and also enhanced awareness of vulnerabilities related to climate change, making private sector contributions toward climate action increasingly urgent.

Recent cost estimates associated with adapting to climate change risks (hereafter referred to as adaptation costs) are two to three times higher than the available international public finance for adaptation. According to the *Adaptation Finance Gap Report,* the international public finance available for climate change adaptation in 2015-16 was US\$23 billion, which increased to US\$30 billion by 2017-2018. Of this, only about US\$500 million (1.6 percent) of adaptation finance came from private sources. By 2030, it is estimated that adaptation costs will range between US\$140-300 billion per year. Even with a large increase in public sector contributions, the volume of finance required to promote climate change risk management in developing countries is far beyond what most expect public finance will be able to contribute. Indeed, the shortfall in available public finance is even more pronounced due to the ongoing COVID-19 crisis.

Given this context, greater engagement with the private sector is at the forefront of the UNDP's recent adaptation initiatives under the Nature, Climate and Energy (NCE) team, with a range of financial and non-financial instruments available under the SDG Finance Sector Hub to facilitate enhanced private investment to manage the risks associated with climate change. The deployment of new financial instruments will contribute to a broader service offering to support countries' national and sub-national climate resilience solutions. The type of financial support offered by UNDP differs from the balance sheet financing offered by banks. Rather, UNDP's use of financial instruments will facilitate country access to concessional capital - for example through the vertical environmental funds (VEFs) such as the Green Climate Fund (GCF) or Global Environment Facility (GEF).

What UNDP Can Do

In addition to better assessing climate risks and removing technical, capacity, and policy barriers to investment in climate resilient development-oriented solutions by the private sector, UNDP can move to support greater integration of grant and non-grant financial instruments to crowd-in increased private investment and engagement towards climate

change adaptation initiatives. These efforts to encourage private action in adaptation are also aligned with UNDP's overall approach to private sector engagement in achieving the SDGs, which focus on three strategic priorities: unlocking private finance for the SDGs, aligning business strategies and operations with the SDGs, and putting in place policies that foster inclusive and green economies.

This strategy note briefly maps out the rationale and approach for UNDP to unlock and catalyze private sector involvement to scale up climate change risk informed development solutions, with an eye on challenges and opportunities to inform the longer-term work programme.

2. Private Sector Landscape for Climate Change Adaptation

Given the urgency for actions in climate change risk management, the scale of action required, and scale of financing needed to manage expected and unexpected risks to economies around the world posed by climate change, there is an immediate need to align, leverage and mobilize both public and private capital for climate change adaptation. In particular, the limited amounts of public capital currently available for adaptation will need to catalyze far greater sums of private capital. As such, there is a premium placed on leveraging limited public climate finance to de-risk and attract private finance into climate change risk management related activities. This can be done by using public climate finance to improve the enabling environment for investment in developing countries, de-risk private capital through first-loss, guarantees, and insurance, and pilot innovative but unproven financial structures in the field.

This requires, in addition, navigating the variety and complexity of financial instruments available to support other related and relevant climate actions. Clear approaches are needed to access and blend the underlying sources of climate finance using these financial instruments¹ and associated investments. It also demands rigorous analytical approaches to develop credible business cases that can attract private sector engagement and investment in climate change adaptation². Finally, successful scaling up of private climate finance requires engagement and strategic agreements with a wide range of financiers, corporations and other partners, including multilateral development banks, national development banks and sector-relevant private entities.

2.1. What is the Private Sector?

According to UNDP's Policy on Risk Management for Partnerships with the Private Sector, UNDP defines the private sector as:

(a) For-profit and commercial enterprises of any size, whether privately owned, public or fully governed by governments.

¹ See Section 4.2 for details on financial instruments.

² See Section 5.1 for UNDP's approach for de-risking private sector investment in CCA, which outlines steps needed.

- (b) Corporate foundations³ and foundations directly funded and/or governed by a business entity.
- (c) Business associations, coalitions and alliances, including chambers of commerce, employers' associations, cooperatives, and industry and cross-industry initiatives where the participants are for-profit enterprises. These organizations will be assessed on their own merits, rather than on the merits of its members.⁴

When discussing climate change adaptation, it is helpful to disaggregate the first category of commercial enterprises into more specific actors:

- Micro, Small & Medium Enterprises (MSMEs) The local private sector in developing countries consists primarily of MSMEs, which include sole proprietors, smallholder and family farms, and enterprises.
- Large Enterprises & Multinational Corporations (MNCs) Large enterprises • employ 50 or more employees and are more prevalent in advanced developing countries. MNCs are increasingly active in developing countries as registered companies with in-country operations, and also through indirect investments through their supply chains.
- Capital Providers (Investors) & Market Facilitators Actors that make direct investments and provide financial services, respectively. They include banks, venture capitalists and angel investors. UNDP also works with IFIs/DFIs as capital providers, often linked to catalyzing commercial capital.

Many of the challenges and initiatives referred to in this paper will be in the context of MSMEs, due to their particular vulnerability to climate risks.

3. Barriers & Opportunities for Engaging the Private Sector

3.1 Barriers for Private Sector Engagement

For the private sector, there are several barriers to investing in climate risk management, which go some way in explaining the limited amount of private capital currently flowing towards outcomes that are deemed to support or promote resilience to climate change induced risks. Some of the key constraints limiting the amount of private financing that is directed towards climate risk management practices are described below, both in general and how they affect specific actors.

Table 1: Barriers to Investment in Adaptation for Different Private Sector Actors				
Barrier	Micro, Small &	Large Companies &	Capital Providers &	
	Medium Enterprises	MNCs	Market Facilitators	
Insufficient	Unavailable,	Lack of data and	Lack of data and	
Climate Data	inaccessible or	knowledge on	visibility on climate	

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³Corporate foundations are independent grant-making organizations with close ties to the corporation providing funds. Some companies have direct giving programmes, some have foundations, others have both.

⁴ In the case of a chamber involved in the promotion of an activity included in exclusionary criteria, UNDP is advised to not engage. However, if one of its members falls within the exclusionary criteria, UNDP should not necessarily exclude working with the chamber.

and Lack of	incomprehensible	climate risks limits	risks stymies
Knowledge	information on	investment in climate	incentive to finance
on Climate	impending climate	risk management	climate risk
Change Risks	risks makes it difficult	due to uncertain	management action
	to integrate into	risk/return	and hinders
	business planning.	assessments.	insurance schemes.
Perception of	Prevailing ideology	Prevailing ideology	Prevailing ideology
Resilience	that climate risk	that climate risk	that climate risk
Building as	management should	management should	management should
Public Sector	be publicly financed	be publicly financed	be publicly financed
Responsibility	activity.	activity.	activity.
	Lack of financial	Lack of technical	Lack of technical
Weak	resources and	tools available to	tools available to
Identification	technical tools	identify cost-effective	identify cost-effective
of Cost-	available to identify	adaptation solutions	adaptation solutions,
Effective	cost-effective	to invest in.	hindering flow of
Adaptation	adaptation solutions		capital towards these
Measures	to invest in.		measures.
	Difficulty in raising	Difficulty in raising	Large upfront costs,
	necessary collateral	necessary collateral	lengthy payback
	to offset	to offset	periods and
	uncertainties around	uncertainties around	unfavorable risk-
	climate change	climate change	return profiles hinder
Weak	adaptation	adaptation	capital flow towards
Financial	investments such as	investments such as	climate risk
Incentives to	large upfront costs,	large upfront costs,	management action.
Fund	lengthy payback	lengthy payback	Lack of access to
Adaptation	periods and	periods and	financial instruments
Measures	uncertain risk-reward	uncertain risk-reward	to adjust risk-return
Measures	profiles. Limited	profiles.	profiles of climate
	knowledge of	promes.	change adaptation
	alternative financing		• .
			measures and
	mechanisms to		encourage investment.
	pursue.	Sooroity in available	Perceived lack of
	Inability to access	Scarcity in available	
Lack of	technical expertise	technical expertise	technical expertise in
Technical	on climate risk	for implementing	implementing
Capacity to	management	climate risk	adaptation solutions
Implement	measures due to	management	can hinder investors
Adaptation	constraints including	measures.	from directing capital
Measures	scarcity in available		towards climate risk
	experts and lack of		management
	finance.	Oh ata al 22 ta	ventures.
Lack of	Obstacles to	Obstacles to	Lack of
Effective	investing in	investing in	implementation of
Institutional	adaptation include	adaptation include	policy and financial
Arrangements	lack of public	lack of public	de-risking
for Adaptation	financial and policy	financial and policy	instruments to create
Planning	de-risking	de-risking	risk-return profile that

instruments,	instruments,	can most cost-
potentially caused by	potentially caused by	effectively attract
capacity constraints	capacity constraints	investment,
in identifying and	in identifying and	potentially caused by
implementing right instruments.	implementing right instruments.	

- 1. Insufficient Climate Data & Absence of Climate Change Risk Assessments Although larger businesses are increasingly aware of the threats posed by climate change, MSEs tend to be less informed about impending climate risks. This is primarily because climate data and information on climate risks and uncertainties is sometimes unavailable, inaccessible or not comprehensible for MSEs (including in the context of timelines that govern their business operations), making it difficult for these businesses to incorporate climate risks into their planning and decisionmaking processes. Moreover, in countries with weak climate information infrastructure and dissemination capacity, this lack of data and knowledge can also affect larger businesses and limit their investments in climate risk management due to uncertain risk-return assessments. A lack of data also limits the viability of weather-index based insurance products, which are potentially effective risk management solutions.
- 2. Perception of Resilience-building as Public Sector Responsibility Political economy issues, gender and culture, among other factors, play an influential role in the perceptions on how climate change risk management should best be pursued. For a long time, adaptation to climate change has been thought of as warranting only public finance support, the roots of which are embedded in a history where financing for adaptation has long been associated with the idea of the 'polluter pays' principle and the notion of compensation for those adversely affected. The tendency for the public sector to play a leading role dominates the dialogue. However, the reality is that this alone is not sufficient. Alternative ways of financing adaptation including using non-grant financing, involving non-state players, getting the incentives right, among others, are critical in order for alternative approaches to adaptation to be pursued. Although often overlooked, the social context can be a significant barrier to the adoption of new technologies, different ways of raising capital, and production methods for the pursuit of climate change risk management.
- 3. Weak Identification and Evaluation of Cost-effective Adaptation Measures -In order to catalyse private finance towards climate change adaptation, businesses must be able to better assess and prioritize available adaptation measures and options. Adaptation does not yet have a standard menu of actions (with clear returns on investment) from which enterprises can choose; they must develop their own location- and time-specific adaptation measures. Few public tools are available to help both small and large enterprises develop such measures, or to assess their feasibility and cost-effectiveness. Moreover, adaptation options must be competitive with non-adaptation options in terms of product price, operating cost, or sustainability of production. Although investing in adaptation can save money over the lifetime of a project or investment, it is often not clear or well understood how additional upfront capital expenditure can lower operating costs

moving forward. Many enterprises therefore struggle to identify and choose adaptation options.

- 4. Weak Financial Incentives to Fund Adaptation Measures In many cases, adaptation requires new investment over and beyond what otherwise would be required if climate change did not exist as a problem. Some investments that are required for climate change risk management can have relatively large upfront costs, relatively long payback times, and other uncertainties to those who need to bear such costs. Banks and other financial intermediaries, perceiving unfavorable risk-return profiles and failing to price in climate risks due to poor awareness, might hesitate to invest in such activities. MSEs in particular may also struggle to obtain financing for specific types of interventions given constraints in raising the necessary collateral. In addition, knowledge of and access to alternative types of financial instruments that can adjust the risk-reward profile of adaptation investments and incentivize financial institutions to support climate risk management measures might be limited and/or beyond the capacity of MSEs for a variety of reasons.
- 5. Limited Technical Capacity to Implement Adaptation Measures Adopting new business processes, developing new products or services, and implementing new technologies for increased resilience often require technical skills and expertise, which might themselves require upfront investment. Although certain large companies may have the means to access this technical expertise, MSE's are less likely to be able to access it given tight margins in the context of their ongoing business ventures. Moreover, a perceived lack of technical expertise in implementing adaptation solutions can also hinder external investors from directing capital towards climate risk management ventures.
- 6. Lack of Effective Institutional Arrangements for Adaptation Planning -
 - Government institutions are crucial for catalyzing more private investment in adaptation by articulating national adaptation goals, setting adequate standards and policies to meet those goals, and planning how to ensure private sector participation and attract financing to meet climate action objectives. Crowding-in of private finance can be incentivized for MSEs, large businesses and investors through a variety of policy and financial instruments at policymakers' disposal. In many developing countries, however, national and local government institutions themselves suffer from turnover and capacity constraints, which makes engagement and follow through on climate projects particularly challenging due to their long time horizons. There is also limited ability to accurately diagnose the various barriers and risks that are currently holding back climate investments, and then select and implement policy and financial instruments to target these risks, with the overall aim of creating a risk-return profile that can most cost-effectively attract investment and prevent climate-based loss.

Addressing these specific barriers, and many others that will be context specific, to enable the inflow of private investment to complement public finance led efforts to avoid, reduce and/or manage climate change-based economic losses, is an important objective for UNDP in the assistance provided to countries to achieve key sustainable development targets.

3.2 Opportunities for Increased Private Sector Engagement

Despite the barriers to engaging the private sector in adaptation, there are many opportunities for UNDP to scale up its efforts.

Deepen Engagement with Vertical Funds - There has been significant demand for UNDP's involvement in VEFs, primarily the GCF and GEF, based on country requests for support. However, opportunities for sustaining this engagement are based to a large extent on UNDP's ability to design projects that crowd-in more private financing using limited grant funding. The approach outlined in the section below, focusing on de-risking private investments, has been developed with this mind. Overall, there are opportunities to scale up engagement the VEFs with a new generation of projects that leverage innovative financing instruments and feature transformative private sector partnerships.

Catalyze Investment from Private Enterprises - Additionally, there is a huge opportunity to direct investment from enterprises likely to be affected by climate change towards climate risk management actions. For many businesses, investing in climate resiliency is essential for the purpose of business continuity planning and the avoidance of climate-based losses. Enterprises do and can invest in the resilience of business operations as well as strengthening of their value chains to ensure business growth. Climate change will also create business opportunities in so far as developing new products and services to increase the resilience of consumers and communities. For example the Climate Resilience and Adaptation Finance and Technology Transfer Facility (CRAFT) is a private equity fund that has recognized the emergence of such opportunities, and will invest in 10-20 companies which have proven technologies and solutions for climate resilience.

Crowd-in Financing for Adaptation - Finally, there are opportunities for UNDP to work with a range of investors to attract financing for climate risk management initiatives, to invest alongside concessional capital provided by VEFs, to create blended finance opportunities that can achieve climate resilient objectives. UNDP's unique value proposition include its convening power, wide network of partners and country presence throughout the world. This, allied with in-house technical expertise and exposure to investment pipeline opportunities in adaptation - potentially through project engagement, UNDP's Adaptation Innovation Marketplace⁵ and SDG Investor Maps - could be leveraged to develop potential partnerships with a range of financial institutions, including multilateral development banks (MBDs), commercial banks and investors. These partnerships could open new project design opportunities and help deepen our engagement with GEF/GCF, in addition to supporting other efforts to crowd-in private finance towards interventions with adaptation benefits.

3.3. How Can the Private Sector Invest in Climate Change Adaptation?

As described in the 2021 World Bank report *Enabling Private Investment in Climate Adaptation & Resilience,* there are three key ways in which the private sector can play a role in advancing adaptation and resilience-building⁶:

⁵ See Section 5.3

⁶ https://openknowledge.worldbank.org/handle/10986/35203

- i. Providing finance for resilience and adaptation projects and investments.
- ii. Providing goods, services and technologies that support and facilitate adaptation actions, including resilient agricultural inputs, climate information and early warning systems and weather-index based insurance.
- iii. Climate-proofing own business operations and supply chains to ensure business stability, continuity and sustainability

The consideration of these three drivers is central to the subsequent discussion on UNDP's approach to engaging the private sector and putting in place the strategies and initiatives needed to overcome barriers and successfully catalyze private finance for climate risk management.

4. UNDP's Approach to Engaging the Private Sector

Based on the opportunities mentioned, UNDP has been steadily increasing private sector engagement in adaptation and framing its adaptation efforts to support a range of private sector actors, including MSMEs, value-chain actors/businesses, and crowding-in financial/capital providers, including around insurance and other areas of risk informed financing. To achieve this UNDP has also been developing a structured approach for engaging the private sector in climate change adaptation, informed in part by a new framework focused on de-risking private sector investments in the adaptation space. The different components of this approach involve technical assistance and partnership building to facilitate the implementation of policy and financial de-risking instruments to drive private sector investment in adaptation initiatives, supported by the application of new tools and methodologies focused on private sector engagement.

Policy De-risking - Policy de-risking has long been UNDP's traditional technical assistance activity, in which the organization also enjoys a relative comparative advantage. Policy instruments used by UNDP to remove underlying investment barriers in climate risk management have ranged from regulations to improve investment environments by reducing policy risk, to domestic financial sector reform. UNDP will continue to provide technical assistance to develop policy de-risking instruments that will be targeted to unlock greater private financing for climate change adaptation.

Financial De-risking – With the increasing pressure to attract additional finance (exacerbated by the COVID-19 crisis) to achieve the scaled-up needs and aspirations on climate change risk management, there is high demand for financial instruments that can de-risk and crowd-in private capital. Given UNDP's existing constraints in deploying financial instruments - currently using primarily grant instruments - it will expand its engagement with partners who are more capable of financing adaptation initiatives and using financial de-risking instruments. UNDP's role in supporting financial de-risking will be through leveraging its convening power and providing complementary technical assistance that is often required to effectively deploy these financial de-risking instruments. Attracting private capital through financial de-risking and/or direct financial incentive instruments is increasingly necessary for accessing VEFs, underlining the importance of establishing these partnerships.

Partnership Development - In terms of partnership development, strategic agreements and targeted discussions with multilateral development banks, national development banks, private sector entities, United Nations organizations and academia are underway to advance partnerships in GCF programming. These partnerships will be embedded as critical components of adaptation proposals, both to fill gaps in the concessional and commercial layers of a climate adaptation project's capital structure and to provide the required technical support and market linkages for sustainable project impact. Specifically, joint initiatives with multilateral development banks will seek to maximize the comparative advantage of multilateral institutions to explore blended finance opportunities and use of complementary financial instruments. Engaging with national development banks, UNDP will focus on grant-funded technical assistance and capacity building to unlock or complement new and existing sources of capital directed towards project beneficiaries to support the viability of adaptation solutions that include business models, technologies and financing arrangements involving the private sector. UNDP partnerships with private sector entities, including value chain actors, capital providers, investors, corporations and MSMEs, will involve initiatives (using policy and financial instruments) to de-risk participation and investment in climate risk management interventions.

De-risking Framework & Other Tools - To successfully design effective de-risking instruments for crowding-in private sector engagement, UNDP will improve its ability to systematically assess the barriers and risks that hold back private sector investments with adaptation benefits through the deployment of a 'de-risking tool'⁷. Climate risk management investments are, in various contextual settings, often characterized by relatively high upfront costs, uncertain risk and return profiles over long time horizons with geographic, time, and scale specific climate information unavailable or inaccessible. Some measures, therefore, are or are perceived as risky investments. Where there are perceptions of high risks, the private sector can often face high financing costs for adaptation measures. Given high upfront capital requirements, these costs can significantly impede financial viability and flow of capital for adaptation measures. A systematic risk/barrier assessment tool, combined with a framework for identifying and quantifying the impact of different policy and financial instruments to target these risks, has been developed by UNDP to help direct investment towards climate risk management.

UNDP has also developed a climate risk-informed, gender-sensitive value-chain development toolkit to support market and value-chain development in the agriculture and food sector. The published toolkit will include best practices for mapping value chains and identifying potential interventions that enhance climate resilience, empower women, and contribute to inclusive market development. In addition, it will feature elements particularly geared towards private sector engagement, such as conducting barrier/risk analyses along agricultural value chains at each step of the chain, example business models for upgrading value chains, identifying viable entry points in a value chain for private sector actors, and guidance on value chain financing.

New Financial Instruments – In addition to building partnerships that can unlock private finance, UNDP is also developing comprehensive policy/operational guidelines to accommodate new financial instruments of its own⁸, as a complementary measure to

⁷ See Section 5.2 for details on de-risking tool

⁸ See Section 4.2

overcome constraints in designing new types of projects and direct private finance towards climate risk management initiatives. Along with the de-risking framework described above, this initiative would help meet the urgent challenge to UNDP's continued value-add and positioning as a partner of choice for VEFs. Consequently, it would also allow UNDP to maintain its current level of support to developing countries, and extend its ability to meet new demand from developing countries as environmental finance is set to grow in coming years.

Risk Finance Solutions – UNDP also aims to deliver risk finance solutions to support private investments, including insurance to vulnerable countries and communities, and align and leverage the work of its Insurance and Risk Finance Facility with its adaptationrelated work. The insurance and risk facility is a flagship initiative established as part of the Finance Sector Hub, and underpinned by the Tripartite Agreement between the German Federal Ministry for Economic Cooperation and Development, UNDP and the Insurance Development Forum. The facility will provide a one-stop shop for UNDP country offices, programme countries, and partners for all issues related to insurance and risk finance. Part of the effort around developing risk finance solutions includes collaborating with the Coalition for Climate Resilient Investment (CCRI), further detailed in the Partnerships section below.

Partnership Development - In terms of partnership development, strategic agreements and targeted discussions with multilateral development banks, national development banks, private sector entities, United Nations organizations and academia are underway to advance partnerships in GCF programming. These partnerships will be embedded as critical components of adaptation proposals, both to fill gaps in the concessional and commercial layers of a climate adaptation project's capital structure and to provide the required technical support and market linkages for sustainable project impact. Specifically, joint initiatives with multilateral development banks will seek to maximize the comparative advantage of multilateral institutions to explore blended finance opportunities and use of complementary financial instruments. Engaging with national development banks, UNDP will focus on grant-funded technical assistance and capacity building to unlock or complement new and existing sources of capital directed towards project beneficiaries to support the viability of adaptation solutions that include business models, technologies and financing arrangements involving the private sector. UNDP partnerships with private sector entities, including value chain actors, capital providers, investors, corporations and MSMEs, will involve initiatives (using policy and financial instruments) to de-risk participation and investment in climate risk management interventions. For details on partnerships and platforms, see Section 5.3.

Key Features of Approach - Two key features underpin UNDP's new approach and inform UNDP's product and service offering for engaging the private sector in climate change adaptation. Firstly, part of this new approach entails the process of **de-risking** - helping assess barriers and risks to private sector investment in climate resiliency, identifying public support instruments to de-risk and remove barriers to investment, and undertaking investment appraisals and cost-benefit analyses among other tools to identify bankable investment opportunities in maximizing economic and social benefits related to climate change risk management. Some of the overarching barriers and risks relevant for private sector entities investing in climate resilient practices are related to climate information and risk management, policy and regulation, market (supply and demand),

capacity and skills, and access to finance. The de-risking approach disaggregates investor-related risks into risk categories that are specific and pertinent to the adaptation measure and sector, in addition to considering barriers to investment, before identifying appropriate policy and financial de-risking instruments.

The other aspect of the changed approach involves updating UNDP's policies and procedures to support the deployment and use of **new financial instruments** beyond grants to advance climate change risk management that is technically and financially sustainable. Both are discussed in greater detail below.

4.1 De-risking Private Sector Investment in Climate Change Adaptation by Addressing Barriers & Risks

A large part of UNDP's approach stems from the understanding that the barriers and associated investor risks to climate risk management contribute to the high financing costs and market failures that impede private investment. This especially hurts MSEs, the backbone of urban and rural economies in developing countries. UNDP's approach also acknowledges that despite the risks and barriers to investment, there are clear business cases to be made for investing in climate change adaptation. The key entry points for private sector investment are:

- Increasing climate-resilience of business operations (including value chains)
- Opportunities for the development and diffusion of products, services and technologies that increase climate-resilience of consumers and communities
- Providing finance for adaptation and resilience-building projects and initiatives

However, catalyzing investment in climate risk management through the above entry points often requires public support to create an enabled environment for private sector investment to promote and support resilience. To help achieve this, UNDP is developing an operational framework to guide public sector de-risking efforts related private investment in adaptation (detailed in section 5.1).

In addition to developing this operational framework, UNDP is expanding the range of financial instruments it is capable of using as part of its effort to evolve its private sector engagement approach to climate change adaptation. The next section discusses the new financial instruments in greater detail.

4.2 Catalyzing Private Sector Investment Using New Financial Instruments

The role of UNDP has traditionally been to channel grant instruments to provide technical assistance to developing countries, focusing on policy measures. Given the need to evolve beyond this approach, UNDP is updating its 'financial toolbox' by changing its internal policies and procedures to draw on a wider suite of financial instruments to support the needs of client countries in advancing towards and achieving financially sustainable development impacts. Engaging effectively with the private sector will require a broader suite of instruments than what is currently available.

Following an analysis of the suitability, demand and appropriateness of various financial instruments with respect to intended objectives, two categories of new instruments have been identified for prioritization by UNDP to support its work with the private sector. The following section briefly describes these instruments along with potential use cases in the context of crowding-in private finance for climate risk management.

4.2.1 Immediate Prioritization: Grant Instruments

Grant instruments are very suitable for UNDP's existing approach (and current accreditation status with VEFs). They are in high demand, have relatively lower associated risks and can be highly effective when deployed strategically. Below are brief descriptions of the instruments available to UNDP, and examples of how they can be used to crowd in private investment for climate risk management issues. Some of these instruments are for use on a smaller-scale and have less capacity to catalyze private finance, while others can contribute towards market transformation and effectively crowd-in large-scale private financing for adaptation and resilience, which is the big picture objective.

Low Value Grants – Low value or micro-capital grants are individual grants that do not exceed \$150,000. Additionally, one recipient organization may receive multiple grants provided the grants do not exceed on a cumulative basis \$300,000 within the same programme or project. UNDP has a strong track record of deploying low value grants for work with small entities, with these grants typically being disbursed in advance of expected outcomes being achieved. Moving forward, UNDP has the opportunity to use grant financing in a catalytic way, complementing financing from DFI and private sector partners by funding technical assistance activities that de-risk private investments.

Real Case 4: AF-EU-UNDP Innovation Small Grant Aggregator Platform

AF-EU-UNDP Innovation Small Grant Aggregator Programme (ISGAP) is a new \$22 million (\$17m managed by UNDP, \$5m managed by UNEP/CTCN) small grants programme, financed by the Adaptation Fund and the European Commission, to support innovation for effective, long-term adaptation to climate change. The programme aims to provide 40-50 micro grants (\$60,000 per grant, \$120,000 total for the project duration) to promote innovative adaptation practices, business models and technologies; 20-30 small grants (\$125,000 per grant, \$250,000 total for the project duration) to accelerate innovative adaptation practices, business models and technologies with scaling potential. Technical assistance from the network of UNDP and partners will be provided to grantees to enhance the results. ISGAP is also providing grantees a pathway to scale, either through public funding projects or through potential private funding channels brokered by UNDP and partners. This project also builds on a common infrastructure for low value grants based projects that aim to provide direct support to local actors. ISGAP is designed and managed by UNDP with four main functions that could be flexibly leveraged by other low value grants projects: (1) Sourcing, Screening, and Selection; (2) Fund Disbursement & Management; (3) Aggregated Technical Support / Investment Brokering Facility; and (4) Scale, Exit Strategy and Knowledge Coordination.

In coordination with UNEP/CTCN and utilizing existing partner networks such as International Center for Climate Change and Development (ICCCAD), the Global Resilience Partnership, Climate-Knowledge and Innovation Community, the LDC-based Universities Consortium on Climate Change, and UNCDF, ISGAP also aims to share lessons learned and best practices through an open platform (Adaptation Innovation Marketplace - AIM) to scale up locally led adaptation innovation. Sharing best practices can help individuals/organizations in different regions of the world to better prioritize their options based on need and capacity.

Example 1A: Capacity building for smallholder farmers on climate-smart agriculture

- UNDP could award low-value grants to NGOs providing technical assistance and capacity building to local farming communities aimed at the adoption of climate-smart agriculture
- For instance, a GCF project in Madagascar, implemented by EIB, awarded grants to NGOs to address smallholder farmers' climate vulnerability and increase capacity in climate-smart landscape management
- In larger programs involving multiple NGOs under the coordination of a ministry or international organization, UNDP could partner with the coordinating institution for ongranting to the NGOs

Example 1B: Innovation challenge grant for launch of a climate-smart agriculture impact fund

- An impact investor wants to launch a new fund focused on innovative finance approaches to climate-smart agriculture in Africa. For instance, the fund may extend working capital or equipment loans to small farmers for the purchase of climate-resilient seeds or water-efficient irrigation equipment, using a mix of commercial and concessional capital
- Fund set-up is expensive. Legal fees and the costs to market the fund to prospective investors (e.g. roadshow) are significant. The fund will be small (e.g. \$10 million) given its innovative and untested investment strategy. High set-up costs are a significant deterrent for the impact investor
- UNDP awards the impact investor a \$40,000 innovation challenge grant to cover legal fees
- (TBC: unclear from the PPM is the innovation challenge grant can exceed \$40,000. A higher figure, say \$100,000-150,000, would be of great help for a fund of the magnitude indicated above)

On-granting – Where UNDP selects and finances a third party to undertake a grant programme, following an assessment of the partner to confirm it has the capacities and systems to undertake a grant-making role.

Real Case 5: Resilience for Peace, Stability, Food and Water Security Innovation Grant Programme

This project is under development for financing under the GEF's inaugural Challenge Programme for Adaptation Innovation. The accredited entity UNDP and the project implementing partner GRP (under Stockholm University) aims to study, invest in and scaleup early-stage innovations that hold the greatest promise of delivering resilience outcomes that promote peace & stability in fragile and conflict-prone regions with high vulnerability to climate change in the least developed countries.

The project will firstly assess potential innovations and investments for enterprise-based models to strengthen resilience in fragile and conflict-prone regions with high vulnerability to climate change and identify key thematic areas of investment and financing for enterprise-development for adaptation in the context of conflict-prone and fragile regions with high vulnerability to climate change. With a better understanding of the investment landscape, the project will then provide acceleration grant investments to local actors (GRP on-grant to local NGOs/CSOs) with innovative enterprise-based solutions to deliver resilience outcomes that promote peace & stability in conflict-prone and fragile regions with high vulnerability to climate change. The local organizations will enter a global competitive process to determine the most innovative/impactful solutions of this development challenge. To ensure the project grantees receive sufficient support and capacity building, the implementing partner GRP and UNDP will join forces to provide customized technical training, business development and investment brokering & matchmaking to identify postproject scale-up capital. Lastly, the project will develop documentation on lessons learned, guidance and toolkits on effective and efficient adaptation solutions in fragile regions with high vulnerability to climate change, and provide M&E for all grantees. These lessons learned will also be shared through high-level global events such as the Climate Adaptation Summit and Gobeshona Global Conference, and the knowledge will contribute towards the Global Commission on Adaptation under the locally-led action track. This project is also a core contributor to the Adaptation Innovation Marketplace (AIM) mentioned above.

Example 2: Grants for purchase of water-efficient irrigation equipment

- Small island state with large farming population, increasingly affected by droughts or extended dry seasons. Efficient use of limited ground and surface water is essential. Today, farmers rely on rainwater or use inefficient irrigation techniques, such as flooding or overhead sprinklers
- Farmers are reluctant to install or upgrade to micro-sprinklers or drip irrigation due to the high upfront investment (relative to their income) and unpredictable prices of produce, making the cost-benefit analysis and expected investment IRR unclear
- Therefore, purchase of new equipment must be part-subsidized via grants. Local agricultural NGO wants to buy equipment in bulk to reduce purchase cost, for subsequent distribution to farmers at subsidized price
- UNDP awards the NGO a low-value grant of \$150,000, covering 50% of the bulk purchase cost of a large quantity of drip irrigation lines or micro-sprinklers. UNDP agrees purchase terms, distribution mode and farmer co-financing with the NGO
- NGO monitors and reports KPIs to UNDP. If first tranche or program is successful, NGO applies for a second low-value grant
- In a larger country, with several NGOs operating in the field, UNDP could on-grant via a local institution (e.g. Ministry of Agriculture or national development bank). Multiple NGOs, selected by the partner institution, would receive low-value grants of up to \$150,000 each, with possibility of subsequent grants on proof of results

Note: In this example the use of these grants to finance adaptation-oriented equipment would be part of a broader systemic intervention involving technical assistance and access to finance, with grant-funded equipment purchases incentivizing trans

Performance Based Grants - Performance-based grants are disbursed by UNDP after the achievement of pre-agreed development results. No advances are provided. Results must be measured on well-defined metrics are certified by an independent assessor. Because of the cost of such independent certification, UNDP recommends the use of performance-based grants for projects of at least \$1 million. The exception is grants of \$300,000 or less, for which the project board may verify results directly.

Since UNDP does not pre-fund the project, the development partner must have the resources to finance all or a significant portion of the activities. Eligible projects must have clearly defined results, measurable according the pre-defined indicators. Such indicators serve as triggers for payment. For these reasons, performance-based grants are particularly suited to projects that leverage on established best practices and existing implementation capacities. UNDP must be able to demonstrate the long-term sustainability of the results achieved. For this purpose, it may impose post-project covenants or may delay part of the payment until a certain period has passed from project completion.

Note: UNDP is also exploring the use of performance based bonds, where achievement of pre-agreed KPIs finance nature and climate interventions. Although there is a sovereign focus for now, the intent is to work with the prime sector, particularly where they are the prime creditor and/or buyer of government performance based bonds.

Example 3A: Mangrove reforestation in hurricane-exposed areas of the Philippines

- The eastern shore of the Philippines is highly exposed to the risk of hurricane-induced flooding. Mangrove forests are the first line of defense. Mangroves, however, are depleted because of human action and natural causes
- The government implemented mangrove reforestation in the past. Best practices for reforestation, including the right mix of mangrove varieties, are well-known. The areas to be restored can be defined upfront and results can be measured based on area covered and other parameters
- UNDP can provide a performance-based grant to the government or development agencies to cover part of the reforestation project, with disbursement tied to the area reforested, varieties of mangroves planted and other parameters, verified by an external assessor
- Long-term sustainability can be tied to additional covenants, such as design and implementation of forestland lease agreements that incentivize communities to preserve mangroves in exchange for the right to extract economic benefits (e.g. sustainable crabbing and use of other mangrove products)

Example 3B: Solar salt project in coastal Guinea

• Small salt producers in the coastal areas of Guinea burn mangrove wood for saltwater evaporation. This has resulted in the indiscriminate cutting of mangrove forests, which

are essential to counteract the effects of sea level rise and reduce saltwater intrusion in coastal rice fields (a main source of food and income for local communities)

- A French NGO has implemented a project aimed at promoting the adoption of solar evaporation, training women who are in charge of salt production as a side activity to farming on the use of evaporation ponds waterproofed with plastic liners. This technique is more environmentally friendly, results in higher production yields and is less time-consuming
- The NGO's program has been tested for several years and is effective
- UNDP could provide a performance-based grant with disbursement tied to the number of women who have permanently switched to solar evaporation. Since one kilo of salt requires three kilos of wood to be burnt in the traditional process, other indirect results such as mangrove area preserved and reduction in CO2 emissions can be measured

Grants with Income-contingent Repayments - Grants provided by UNDP can result in the recipient generating additional revenues or realizing cost savings. UNDP can add clauses to its grants that enable it to receive payments from the grantee if and when such revenue generation or cost reduction occurs. If these positive cash flows do not materialize, the grant is not repaid. The arrangement is, therefore, different from zero-interest loans, which require contractually the repayment of principal at maturity.

One caveat: Grants with income-contingent repayments should not become a cheap substitute for loans (commercial or concessional). If project cash flows are large and predictable enough to pay interests and repay principal on a loan, it would be a waste of concessionality to use grants, albeit with income-contingent repayments.

Example 4A: Infrastructure projects to increase water supply during droughts

- Infrastructure projects that increase availability of water for a community at times of drought result in higher revenues for the utilities that supply and distributed that water, if they earn tariffs linked to consumption volumes (note: this would not be the case if water supply infrastructure were funded entirely out of government budget)
- The Windhoek aquifer recharge project presented by UNDP to the GCF is an example. Water pumped into the aquifer during rainy periods would be pumped out and sold during droughts. The City of Windhoek charges tariffs for water distribution and would earn additional revenues during droughts, when water consumption would otherwise be rationed
- The unpredictability of drought frequency and severity makes this type of project unsuitable to loans. Unless a government guarantee is in place, the project may default if droughts do not occur before loan maturity. Because of the potential repercussions on sovereign debt, the government may refuse to extend a guarantee. This, in turn, may deter lenders from financing the project altogether

Example 4B: Income-contingent grants for purchase of water-efficient irrigation equipment

- Same scenario described in Example 3
- But now assume that farmers realize a quantifiable revenue increase from the installation of irrigation equipment: they are able to produce more in the dry season

(versus rain-fed agriculture) and commodity prices are predictable, perhaps because a large buyer down the value chain commits to a certain purchase price

- Under these assumptions, part of the additional revenues could go towards repaying a UNDP grant with income-contingent repayments
 - The realism of future cash flow assumptions must be carefully checked on a project-by-project basis

Loan/Performance Guarantees – A Performance guarantee is a commitment to take responsibility for a pre-defined percentage of any loss a recipient incurs if the recipient takes certain pre-agreed actions, but expected revenue/savings are not achieved because of factors beyond the recipient's control. Under loan guarantees, guarantors commit to take responsibility of pre-defined percentage of a loan in the event the borrower defaults.

Note: UNDP is only recently able to use this instrument, which is currently very complex to implement.

4.2.2 Secondary Prioritization: Capitalization of Endowment Funds, Revolving Funds with Implementing Partners, the issuance of loan or performance Guarantees, and the issuance of Loans

These instruments have all been assessed as medium to high in terms of suitability to UNDP, potential impact and current demand. They have relatively higher associated risks and technical complexity, and as such, their future adoption by UNDP remains a more distant prospect. However, given the ability of these instruments to catalyze high levels of private sector investment, UNDP seeks to scale up collaboration with partners that are accredited to make use of such instruments in designing climate risk management interventions.

Capitalization of Endowment Funds – Endowment funds are structured such that a pool of funds is accumulated and the principal amount kept intact, while investment income is available for use for specified purposes.

Revolving Funds with Implementing Partners – Revolving funds are structured in order to finance (lend for) specified purposes, but from which loans must be replaced/repaid in order that the full amount is available again.

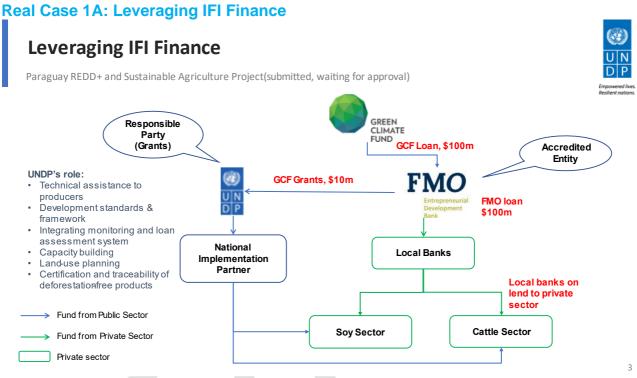
Based on the new approach, the following section articulates UNDP's particular initiatives for crowding in greater private sector investment for adaptation projects. These are being developed in response to our need to better evaluate the risks and barriers to investment in CCA, and in anticipation of the aforementioned changes to UNDP's mandate that will allow for using an increased range of financial instruments.

4.3 Private Sector Engagement Models

There are multiple ways for the private sector to collaborate with UNDP and co-create impact through UNDP's NCE work. The three most common engagement models that UNDP will pursue as part of its new approach to collaborating with the private sector are:

- 1. Direct project co-financing from private sector (direct or through blended instrument)
- 2. Parallel financing from private sector
- 3. Corporate Social Responsibility (CSR) collaboration

Below are some real examples of these models being applied across VEF projects.



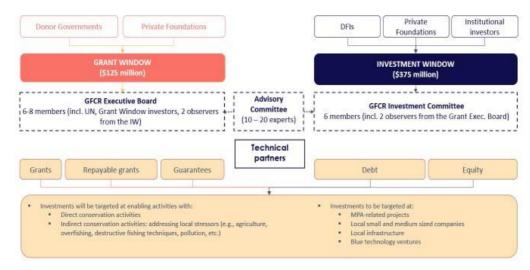
This is a partner-led project where UNDP is acting as a responsible party to FMO for project implementation. UNDP's on-ground technical assistance work with farmers is linked to the low interest rate loans provided by FMO through local banks to provide the incentive and funding to transform agriculture, land and forest use practices. This represents a strong model for UNDP which can be replicated to increase engagement with other GCF-accredited entities, with UNDP acting as an implementer for a specialised component of a project rather than leading the whole project.

Real Case 1B: Leveraging Blended Finance

UN DP Empowered lives.

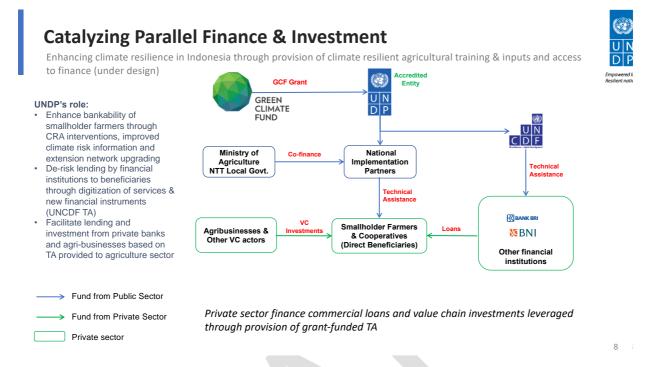
Leveraging Blended Finance Funding

The GFCR is a multi -partner blended finance instrument designed to raise at least USD 500 million in capital by 2030, through a coalition of UN agencies (including UNDP and UNCDF), financial institutions, and private philanthropy sources. Investment window partner is BNP Paribas & Pegasus capital.



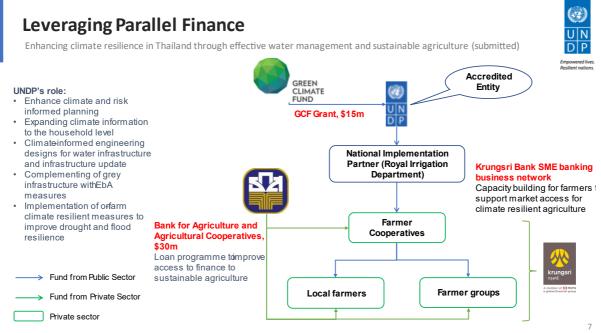
The GFCR is a multi-partner blended finance instrument designed to raise at least USD 500 million in capital by 2030, through a coalition of UN agencies (including UNDP), financial institutions, and private philanthropy sources. It will serve as a vehicle to provide risk equity capital, debt, concessional finance and grant funding to deliver smart solutions at scale to save reef ecosystems and strengthen the resilience of dependent communities. It has a dual focus to: a) facilitate the uptake of innovative financing mechanisms, including private market-based investments focused on coral reef conservation and restoration and b) unlock financing for coral reef-related climate adaptation through the GCF, other vertical funds and multilateral development banks. UNDP will lead the grant window in partnership with UNEP and UNCDF. Although the structuring of this type of initiative is complicated and time consuming, it is a good solution for addressing larger scale global issues. This type of structure could also be applied to development challenges like water management, climate information and waste recycling.

Real Case 2A: Leveraging Parallel Finance/Investment



The above model involves UNDP using grant-funded technical assistance to catalyze parallel finance and investment from the private sector. To catalyze parallel finance from national banks and parallel investment from MNCs/agri-businesses, this project will implement a range of technical assistance activities focused on de-risking lending to value chain actors who are seeking to shift towards more resilient production and processing practices. This barrier removal is necessary due to the multiple perceived risks of lending to the agriculture sector, including the costs of working with rural farmers, perception of risks in doing business with them, and market inefficiencies. The key technical assistance and de-risking activities are based around: improving climate resilient agricultural (CRA) planning and support, dissemination and adoption of CRA tools and practices, and enhancing access to markets and financial services.

Real Case 2B: Leveraging Parallel Finance



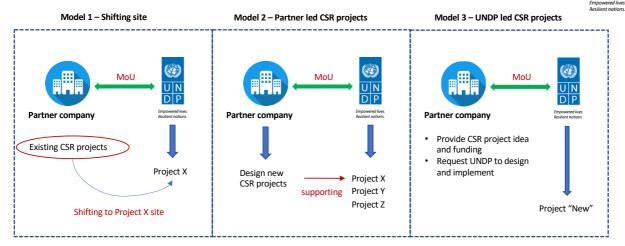
The GCF Thailand project illustrated above used technical assistance at the farmer cooperative level and an innovative approach using IoT systems to open up significant opportunities to engage with private sector financing partners. The project attracted new parallel financing from the Bank of Agriculture and Agriculture Cooperatives (BAAC) – a USD 16 million line of credit through financial products with incentives for farmers to practice climate resilient agriculture. Krungsri bank also offered capacity building for farmers to improve their financial literacy.

Case 3: CSR Collaboration



Sample CSR flow chart





Above are examples of possible CSR collaboration modalities which UNDP will pursue moving forward. These include incorporating existing CSR projects within UNDP projects, co-designing new CSR initiatives to support UNDP projects, or UNDP acting as the implementing partner for new CSR project ideas.

Beyond these models, UNDP will also expand its engagement with the private sector by offering services linked to increasing SDG impact for private companies. Developing this new service line specifically for climate adaptation and resilience-building is currently being explored further.

5. Ongoing UNDP Initiatives to Increase Private Sector Engagement in Climate Change Adaptation

UNDP has been applying its new approach to private sector engagement across a number of projects and programs that are currently under design – some highlights are below:

Table 2. FSE-Telated Chimate Change Adaptation Frojects		
Project	Private Sector Engagement Details	
SADC (Multi-country	Program will facilitate access to financing for a host of actors,	
program): Integrating	including farmers and livestock producers, agro-processors etc.	
climate resilience in	Multiple market-oriented interventions targeting private sector	
agriculture and water	engagement and investment are being assessed with	
resources through a	partnerships under preliminary development. Financial	
landscape approach in	instruments that are under consideration include a debt facility,	
Southern Africa	regional thematic fund and a restoration bond among others.	

Table 2: PSE-related Climate Change Adaptation Projects

Indonesia : Building the climate resilience of smallholder farmers in Nusa Tenggara Timur	Project will catalyze increased lending to actors across several agricultural value chains from national and regional banks. Agri- tech firms will build digital platforms to support value chain traceability, access to finance and access to information and provide co-financing. Agri-businesses will be engaged as off- takers for different commodities, and also commit co-financing to support climate-resilient production for project beneficiaries they work with.
Multi-Country (Global): Global Fund for Coral Reefs (GFCR)	Program will facilitate the uptake of innovative financing mechanisms, including private, market-based investments focused on coral reef conservation and restoration. It seeks to unlock financing for coral reef-related climate adaptation through the Green Climate Fund and Multilateral Development Banks (MDBs). Revenue generating models for scaling up include: eco- tourism, sustainable fisheries & aquaculture, blue carbon, waste management, recycling, water treatment, and others.
Serbia: Strengthening the resilience of small and medium-sized fruit and vegetable producers to climate change induced water insecurity in Central Serbia	The project will work with a range of credit organizations – local banks, national subsidy schemes and international development banks – in order to redesign and establish credit products that are tailored to respond to the adaptation needs and to respect the capacities of small and medium scale farmers in central Serbia
Senegal : Sustainable Management of Senegal's Forest Ecosystems	Project will establish a Payment for Forest Ecosystem Services (PFES) mechanism to introduce the provision of incentives for sustainability and enhancement of environmental services which relies on voluntary participation of landowners, communities and other eligible stakeholder, and facilitate the eradication of practices which contribute to degradation of forest ecosystems supported by strengthened enforcement. PFES is the key private sector entry point for the project, as both the Center for International Forestry Research and the Senegalese Banque Agricole are interested in formulating the PFES.
Multi-Country (Caribbean): Tourism & Coastal Management	Private sector engagement will be based around enhancing nature conservancy, tourism and coastal management through innovative finance.
Botswana: Building climate resilience of agricultural systems in the North-East and Central districts of Botswana	Technical assistance delivered to farmers will unlock co-finance from private sector, including local development banks. A loan program will specifically be designed to catalyze additional finance for CRA, targeting small-scale farmers and private- sector agricultural suppliers.
Guinea : Enhancing the Resilience of Guinea's Coastal Rural Communities to Coastal Erosion Due to Climate Change	Project will crowd in private investment for development of mangrove rice value chain as alternative resilient livelihood option, catalyzed by provision of technical assistance. Project could also receive CSR Co-financing from mining companies (through Guinea Chamber of Mines) in the form of trust fund for the project.

The projects listed are all focused on leveraging private sector partnerships and financing using the approach described earlier, and deploying the models that have been outlined. In addition, these projects are also applying flagship tools and methodologies that have been specifically developed to enhance UNDP's engagement with the private sector. These include a *framework for de-risking private sector investments in climate change adaptation*, and *a toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness*.

5.1 Operational Framework for De-risking Private Investments in CCA

Although several frameworks exist on assessing climate vulnerability and selecting adaptation interventions, no effective guidance is currently available on how private sector investment in climate risk management can be catalyzed through the application of derisking instruments that address investment barriers and high financing costs. UNDP has developed a framework and supporting tool to bridge this gap, designed to assist policy makers, planners, project developers, and both large and small private sector entities in selecting sector-specific climate adaptation interventions, and effective de-risking instruments for catalyzing private sector investments in climate change adaptation based on a risk assessment.

Overall, the objective is to apply the framework to help assess barriers and risks to private sector investment in climate resiliency based on engagement entry points; identify public support instruments to de-risk and remove barriers to investment; and undertake costbenefit and financial analyses to select a mix of instruments that maximize economic and social benefits. The tool calculates the financial implications of investing in adaptation interventions before and after the introduction of de-risking instruments. In addition to combining guidance on assessing climate change risks, vulnerability, adaptation interventions and the barriers to adopting adaptation interventions, the key value addition of this framework lies in identifying public sector policy and financial de-risking instruments that can be implemented to mobilize greater private capital for climate change adaptation measures. The series of steps that comprise the framework are briefly described below:

- 1. Develop the climate rationale
 - a. Understanding current and future trends and impact of climate change
 - b. Assessing vulnerability, risks and impacts
- 2. Identify and shortlist adaptation options based on research and feedback from stakeholders regarding their feasibility
 - a. Assess optimal provision breakdown between private and public sector actors to maximize welfare
 - b. If private sector is identified as optimal provider for (part of) the adaptation option, validate financial feasibility for PS investment before proceeding
- 3. Conduct risk/barrier analysis and identify de-risking instruments that can remove barriers and catalyze PS investment in adaptation options
- 4. Develop theory of change with finalized intervention strategy
- 5. Select monitoring & evaluation metrics

The de-risking framework will be piloted and refined between 2021-2022 across a select few projects that have potential to catalyze significant private sector investment.

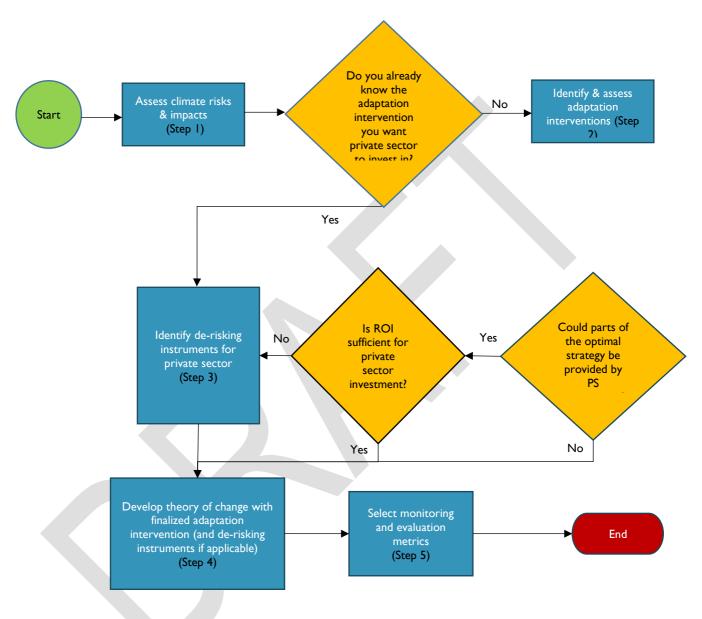


Figure 2: Private Sector De-Risking Framework Schematic

5.2 Toolkit Integrating Climate Resilience & Gender Responsiveness in Agricultural Value Chains

UNDP has recently launched a new flagship toolkit under the Integrating Agriculture in National Adaptation Plans (NAP-Ag) programme, that can also support efforts to catalyze private sector engagement around agricultural value chains. The '*Toolkit* for value chain analysis and market development integrating climate resilience and gender responsiveness' aims to help countries in selecting and analyzing value chains for opportunities to improve climate change resilience and reduce gender inequalities.

The published toolkit will include best practices for mapping value chains and identifying potential interventions that enhance climate resilience, empower women, and contribute to inclusive market development. In addition, it will feature elements particularly geared towards private sector engagement, such as conducting barrier/risk analyses along agricultural value chains at each step of the chain, example business models for upgrading value chains, identifying viable entry points in a value chain for private sector actors, and guidance on value chain financing.

Along with the de-risking framework, this toolkit will be piloted across a select few value chain focused projects between 2021-2022.

5.3 Partnerships & Platforms

In addition to the development of the OF and VC Toolkit as tools to crowd-in private investment, UNDP's climate change adaptation team is also forming partnerships and platforms with other groups with the idea of promoting climate risk management in business.

Adaptation Innovation Marketplace: UNDP, with the International Center for Climate Change and Development (ICCCAD), the Global Resilience Partnership, Climate-Knowledge and Innovation Community, the LDC-based Universities Consortium on Climate Change, UNCDF, donor partners (AF, EU) and industry partners (Natural Strategies Investments GmbH, Asian Venture Philanthropy Network: AVPN), launched the Adaptation Innovation Marketplace to galvanize scale up of adaptation innovations, focusing on civil society, NGOs, and women and youth innovators. The Adaptation Innovation Marketplace provides direct funding to local entities through a competitive grant process with the following functions:

- The Adaptation Innovation Marketplace will focus on sourcing the best ideas from around the world, building on its extensive network, supporting innovations with financing and technical assistance, and facilitating learning to replicate and scale adaptation solutions with impact at the local level.
- It will play a critical role in catalyzing finance for innovative solutions, connecting local actors, enterprises, and investors to transform solutions into impact for the communities and economies.
- With finance and technical support, linked to enabling policy support, UNDP will seek to de-risk investments to bring to market, as well as scale innovative technologies and practices for adaptation.
- By supporting peer-to-peer learning, networking, and partnerships, the platform will provide an opportunity to create a thriving marketplace for adaptation solutions, crowding in public and private sector for adaptation action.

Currently, there are two key programmes under this platform:

AF-EC-UNDP Innovation Small Grant Aggregator Programme is a new \$22 million small grants programme, financed by the Adaptation Fund and the European Commission, to support innovation for effective, long-term adaptation to climate change.

- Resilience for Peace, Stability, Food and Water Security Innovation Grant Programme is under development for financing under the GEF's inaugural Challenge Programme for Adaptation Innovation.

Coalition for Climate Resilient Investment (CCRI): CCRI is a private-sector led group of diverse stakeholders that seeks to transform infrastructure investment by integrating physical climate risk considerations into investment decision making, with the goal of increasing investments in climate resilient infrastructure. As a member of CCRI, UNDP is participating in two different workstreams – on Asset Design and Restructuring (ADS) and on Systemic Resilience.

For ADS, UNDP is connecting the coalition with the International Association of Insurance Supervisors (IAIS) to propose a subsection of resilient infrastructure within the infrastructure asset class. This will offer an opportunity to present how investment in resilience lowers the physical and financial of risks of climate change, and push for favorable regulatory treatment of climate resilient infrastructure investments. UNDP will also support CCRI with the design and implementation of climate risk modelling tools, and innovative financial instruments and insurance products such as resilience bonds and insurance-linked loan packages to incentivize private investment in climate resilience at the country-level.

Under the Systemic Resilience workstream, UNDP will support the development of a national investment prioritisation tool and supporting metrics. This tool will incorporate visual and dynamic representations of exposure to physical climate risks within a particular infrastructure network/system to help identify the priority areas for strengthening resilience, contributing ultimately to the development of a project pipeline. For this workstream, UNDP will be involved with risk modelling, development of adaptation metrics, NDC engagement, piloting the tool across projects, and data sharing.

SDG Investor Platform: UNDP recently partnered with the Global Investors for Sustainable Development (GISD) Alliance to launch the SDG Investor Platform, a tool to facilitate private sector investments that contribute to furthering the SDGs. The tool provides investors with access to country-level market intelligence, including insights on the local investment landscape and investor connections. It also allows investors to identify the impact and sustainability areas that, combined with high return, can be stand out within portfolios. UNDP will leverage this tool to further private sector investment for climate change adaptation in line with other areas of private engagement.