

Enhancement of Nationally Determined Contributions in the Context of Climate and Disaster Risk Financing¹

Context

Hoping that the catastrophe track for the worst-case climate scenario projected by the Intergovernmental Panel on Climate Change (IPCC) can still be avoided, climate resilience building and emissions reduction are more important than ever as nations look to enhance the capabilities of the most vulnerable people and nations to fight against climate change.

Vulnerable nations need investment to cover mitigation and adaptation programs from the Nationally Determined Contributions (NDCs) laid out under the Paris Agreement. However, it is important to realize that the investment context depends on the economics of operating in a system and this is influenced by the political economy and with it, valuation methodologies, benchmarks, access to finance, both public (export credits, subsidies or cross-subsidies) and private.

This global disruption and its impact on vulnerable countries has shown the need to balance long-term benefits with short-term costs. It's important now to make educated guesses about low-probability and high consequence events. V20 countries have been seeing a preview of what the rest of the world may have to face with lots of unknowns and 'unknowables'. What is clear is that V20 exposure grows exponentially due to vulnerabilities. Investments made today should not exacerbate the climate crisis or social inequalities. There is an opportunity to redirect resources in support of economic fundamentals. Resilience is being able to sustain critical functionality in a more disruptive future where the volatility and frequency and the impact of external events is much more severe than it has been.

NDCs under the Paris Agreement

Through the Paris Agreement, Parties agreed to transform their development trajectories towards limiting global warming to 1.5 degrees Celsius above pre-industrial levels and to increase their long-term ability to adapt to the adverse impacts of climate change, while making financial flows consistent with climate-proof and -resilient development.

At the heart of collectively achieving these objectives lie the Parties' NDCs. NDCs are intended for Parties to set out ambitious, national mitigation and adaptation targets, strategies for achieving those, and potential support needs. Currently, however, multiple countries do not, or only insufficiently account for resilience measures in their NDCs. That said, cost-effective achievement of both objectives is interlinked. It is instrumental for countries to enhance their account of resilience measures, including climate and disaster risk financing instruments and investment tools. As mitigation and adaptation require multi- and cross-sectoral approaches, NDCs thus need to be anchored in a country's development planning. Mitigating GHG emissions and climate-proofing development affects

¹ This Background note has been prepared to contribute to forming perspectives within and among vulnerable countries including as part of the proceedings of the InsuResilience Global Partnership. It is intended to stimulate further debate to ensure more systematic uptake of climate and disaster finance issues as part of the Nationally Determined Contributions.

all economic sectors, including critical infrastructure assets such as urban services, logistics and transport, water and energy.

NDCs as National Investment Strategies

As such, long-term investment strategies of countries can be anchored in their NDCs. This includes quantitative sectoral investment targets for mitigation and resilience efforts. Yet, to cost-effectively invest in resilience, it is of utmost importance to understand the losses associated with the materialization of climate-related risks and the gains from avoiding or reducing climate risk exposure. Currently, however, the risks, the associated financial losses and even more so, the costs of measures avoiding those losses are unknown to vulnerable countries. The models and risk data remain siloed in the insurance-buying process. This lack of information coupled with a lack of tailored affordable financing substantiates a market failure, which has led to underinvestment in resilience. This includes misguided investments, for example in infrastructure that lock in exposure to current and future climate risks, thus causing the investment not to deliver an economic return in line with the expectations from the project outset. The NDC can address market failures, de-risk investments, and build capacity in national and local markets to the point where cost-effective tools and management can be addressed by the private sector or public-private partnership models.

CDRFI in NDCs: Addressing a Market Failure through Shifting the Economics of Operating in a System

The introduction of climate and disaster financing instruments, including insurance (CDRFI) builds on detecting and pricing risk. Therefore, considering CDRFI as part of national adaptation planning processes can help to address the above-mentioned market failure and incentivize a cost-effective investment mix in adaptation measures (soft engineering and hard engineering), risk retention and risk financing instruments, such as risk transfer, contingent credit lines and cat-bonds, and risk management. The recognition stemming from pricing risk can drastically shift the economics of operating in a system by adding value to investment in and tools for disaster risk reduction, climate risk management and sustainable development. Currently, only few NDCs from V20 countries make reference to a comprehensive risk financing strategy. Moreover, no NDC gives an integrated account of how planned adaptation measures and risk financing instruments interlink. Furthermore, only few NDCs specify the anticipated costs of their planned adaptation measures and no NDC quantifies the anticipated costs of introducing the envisioned risk financing instruments. Accordingly, there is no clarity of whether the planned combination of measures integrate cost-effectiveness to maximize resilience. Three barriers hinder progress in this area:

1. There is no **recognized and standardized methodology and tool to establish a resilience baseline** against which to plan and cost adequate adaptation and risk financing measures. The necessary information, data and knowledge to detect and price risk lies mainly with the insurance industry, but should be available and useable by vulnerable country governments and their relevant planning bodies.

2. There is no **standardized methodology and tool** available to vulnerable country governments and their relevant planning bodies **to develop an integrated investment portfolio of adaptation and CDRFI options**.
3. There is a **lack of guidance on the instruments which build a comprehensive risk financing strategy** and **on how to develop a comprehensive risk financing strategy**, which combines such instruments.

CDRFI in V20 NDCs and National Adaptation Plans (NAPs)

23 V20 members make some reference to CDRFI instruments in their NDCs. 17 of those make reference to only one type of instrument, namely insurance (as opposed to e.g. emergency funds, (contingent) credit, social safety nets, etc.), with most members highlighting micro level insurance in the context of agriculture and few highlighting macro level insurance. One of the 23 V20 members furthermore mentions insurance only in the context of a global disaster relief and insurance facility. Only four members mention one other instrument in addition to conventional or commercial insurance mechanisms at the micro or macro level, including instruments such as social safety nets, green credit and banking and national mechanisms to finance loss and damage. Three V20 members do not mention insurance, with one only generically referring to risk sharing and transfer mechanisms, and the two other ones referring to refining budgetary systems to mobilize resources towards disaster risk management or the creation of financial mechanisms to finance adaptation investments and recovery efforts. Lastly, only one V20 member gives an account of a broad set of CDRFI instruments, including emergency funds, sovereign insurance, contingent credit, and catastrophe bonds. **Ten V20 member highlight CDRFI in their National Adaptation Plans (NAPs)**, including five V20 members which also reference CDRFI in their NDCs. Six of those ten make reference to more comprehensive approaches, while only one V20 member puts forward what most resembles a comprehensive risk financing strategy: In its NAP, St Lucia gives a comprehensive account of ongoing and potential CDRFI applications. On the micro-level, these include the development of partnerships to involve the private sector in community resilience building through agricultural insurance; the development and expansion of social benefit, insurance (life, medical and livelihood protection), pension and compensation schemes for climate related impacts for fishers and their families; the reform of legislation to link property insurance, construction quality and climate risk level of the property location; and the development of agricultural/crop insurance for farmers. On the macro-level, St Lucia highlights the continuation of its membership of the Caribbean Catastrophe Risk Insurance Facility and its participation in (emerging) catastrophe bond insurance platforms that also improve planning responses to catastrophic events (For further information, please see [Annex I](#)).

Three Barriers to Integrated Resilience Investment Portfolios in NDCs

1. Resilience Baseline (Scenarios) to plan Integrated Adaptation and CDRFI Interventions

The UN's IPCC has conducted sensitivity analyses for warming extending from a low of 1.5-degrees Celsius to a high of 4.5-degrees Celsius. In order to adequately plan, weigh and price adaptation

investments, costs, benefits and risk financing options, countries need to understand their starting point. This means understanding their resilience baseline, against which to decide for investment and financing targets that support sufficient and cost-effective adaptation and risk management action. Such baseline (better: baseline scenario) should **aim to demonstrate how the future materialization of climate impacts under a 4.5 degree, a 2.0 degree and a 1.5 degree scenario will develop over time, given 'certain' conditions**. These certain conditions encompass current adaptation efforts and the dynamic development of those socio-economic conditions over time, which drive vulnerability, risk and adaptive capacity. **So far, no V20 member references a resilience baseline scenario in its NDC**. For this purpose, it is necessary to **equip countries with the necessary methodology and/or tools and capacities**, allowing them to independently make and *understand* these assessments and their results. Building on such assessment, countries can then move to identify and select resilience measures that help to deviate from the original baseline scenario to enhance resilience. In developing such standardized methodology, importance should be given to the methodology's capacity to (a) deliver localized baselines, (b) account for the interaction of slow- and sudden onset events, (c) estimate the expected adverse impacts on poverty alleviation, including livelihoods, settlements and human health, and (d) aggregate the associated impacts by sector, e.g. in the form of estimated economic costs.

Creating Resilience Baseline Scenarios for Vulnerable Countries: Indicative Account of Data and Modelling Needs²

In addition to facilitating development and access to a methodology and/or tools to establish (localized) resilience baseline scenarios, vulnerable countries urgently need the data to be processed by said methodology. Although there is an abundance of data available on the impacts of rapid-onset; in particular, on tropical cyclone occurrences) events. The challenge is on acquiring the data needed to set localized baselines. More specifically, such data needs include knowledge of 'certain' conditions, such as sea surface temperature changes; changes in sea level rise; changes in ocean/sea acidity; changes in marine resources (e.g., fish species, etc.) resulting from these changes; changes in services provided by the marine resources that support the livelihood of the coastal communities; changes in land characteristics as a result of changes in rainfall and flood events causing soil erosion and loss of nutrient in the soils, increasing temperatures resulting to increasing soil dryness; changes in land areas becoming more arid; and changes in water availability, and resulting crop production, just to name a few. Moreover, there are "extensive risks" which include extreme rainfall, extreme temperature, and severe thunderstorm events happening at local scales, including intensification of monsoons that lead to severe impacts, which are further confounded by slow onset events. Localized data for these types of risks is also scarce and needs to be strengthened.

2. Development of Integrated Investment Portfolio for Adaptation and CDRFI

Having understood the future materialization of climate impacts across their economies and societies, **countries need to understand how much of that exposure can be averted, through which measures, at what price, and which measures combine most cost-effectively into benefits that justify such**

² Though some countries are in an observation and data gathering phase, methodologies and data analysis can also be conducted using proxy indicators.

investment. Based on a risk-layering approach to building resilience, the most cost-effective reduction in exposure to climate risks will integrate investments in risk reduction (adaptation), risk retention (e.g. budgetary allocations for contingency funds for low impact, high frequency events), risk transfer on and across different levels (e.g. for high impact, low(er) frequency events) and contingency finance. In such context the incentive for enhanced adaptation investments will come from countries moving to reduce high investments in, for example, insurance policies or other products that can address liquidity needs, since reducing the underlying risk through risk reduction investments will decrease the height of the necessary investment in risk financing instruments. The goal is thus to identify those types of combinatory risk reduction and risk transfer investments that come with the lowest overall costs while maximizing resilience through incentivizing adequate investment in both, adaptation and financial protection. **So far, no V20 member demonstrates an integrated resilience investment portfolio in its NDC, which either makes a clear linkage between planned adaptation measures or their interlinkages with CDRFI instruments.** The development of such integrated investment portfolio necessitates equipping countries with the necessary methodology and/or tools, while the portfolio itself can feature in countries' NDCs and National Adaptation Plans and articulate their support needs.

3. Guidance on CDRFI Instruments and their Combination into a Comprehensive CDRFI Strategy

Currently, **NDCs of V20 countries only give a highly fragmented account of CDRFI, if at all, while reference to a broader set of risk financing instruments is lacking in almost all plans.** Since all vulnerable countries, regardless of their specific exposure to climate risks, will be in need of financial protection, the application of a comprehensive set of CDRFI instruments and a strategy for their utilization will be instrumental for achieving resilience. For this purpose, clear guidance is needed, beginning at the most basic level of ensuring that countries have an overview and understanding of existing CDRFI instruments and what type of risk layer to apply them for. **Simply providing such guidance as part of an NDC Development Toolkit can already ensure that countries enhance their account of CDRFI when updating their NDCs, even if methodologies to develop resilience baselines and integrated investment portfolios are still lacking.** In this context, St Lucia's account of a comprehensive set of CDRFI instruments and related policies in its National Adaptation Plan (NAP)³ can serve as a benchmark on how CDRFI should be accounted for in an NDC at the most basic level. **In line with making the aforementioned methodologies available, however, countries need to be equipped with the capacity to develop comprehensive disaster risk financing strategies, which ensure that different CDRFI instruments are introduced as complementary additions to other adaptation investments and applied in a coordinated manner.** Such more refined account of CDRFI instruments will allow countries to feature CDRFI more prominently in their NDCs and, in line with the above, provide cost estimates and support needs for their operationalization and utilization.

³ Government of Saint Lucia (2018): [Saint Lucia's National Adaptation Plan - 2018 - 2028](#); Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development.

Initial Action Areas for Consideration by the InsuResilience High-Level Consultative Group (HLCG)

Based on the above-mentioned barriers, the HLCG should consider the following initial action areas:

- The InsuResilience Global Partnership in partnership with the NDC Partnership may commission work on and/or increase access to a methodology for countries to estimate their resilience baseline scenarios for 4.5 degree, 2.0 degree, and 1.5 degree scenarios. Such methodology should be made available to country governments, including access to funds and capacities for implementing said methodology. As per country needs and requests, the implementation of said methodology should also allow the establishment of localized baseline scenarios.
- The InsuResilience Global Partnership may commission work on and/or increase access to a methodology that allows for the development of an integrated resilience investment portfolio, allowing to identify and cost-effectively combine adaptation investments and CDRFI.
- The InsuResilience Global Partnership, through the NDC Partnership, may move quickly to develop guidance on the existing CDRFI instruments, their application, and their integration into NDCs, as part of the NDC Development Toolkit, while also facilitating the provision of capacities for countries to develop comprehensive risk financing strategies. Based on such guidance and capacity enhancement, the InsuResilience Global Partnership should request the NDC Partnership to support the facilitation of an enhanced account of CDRFI in NDCs, following the example of St Lucia as a minimum benchmark.

Further, while the development and/or facilitation of enhanced access to the requested methodologies and guidance is underway, the enhancement of CDRFI in NDCs should be jump-started to ensure uptake of the to be made available instruments through countries, in so far that:

- The InsuResilience Global Partnership, together with the NDC Partnership, may increase awareness amongst membership of the NDC Partnership that resilience constitutes an integral part of countries' NDCs and that support for countries is available through the NDC Partnership.

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The Munich Climate Insurance Initiative was initiated as a non-profit organization by representatives of insurers, research institutes and NGOs in April 2005 in response to the growing realization that insurance solutions can play a role in adaptation to climate change, as suggested in the UN Framework Convention on Climate Change and the Kyoto Protocol. This initiative is hosted at the United Nations University Institute for Environment and Human Security (UNU-EHS). As a leading think tank on climate change and insurance, MCII is focused on developing solutions for the risks posed by climate change for the poorest and most vulnerable people in developing countries.



Annex I: Overview of disaster risk finance elements in V20 [NDCs](#) (incl. iNDCs, 1st NDCs, 2nd NDCs and respective updates) and [NAPs](#) as of January 2021

No	Countries per V20 Region	NDC	NAP
1	Burkina Faso		<ul style="list-style-type: none"> • Introduce agricultural insurance in the agriculture sector (long-term objective) in context of protecting accelerated growth • Develop financial or non-financial insurance and mutual schemes to protect persons and goods from extreme climate events and natural disasters • Provide sustainable funding for disaster and humanitarian crisis prevention and management by preparing and implementing an appropriate financing strategy to protect persons and goods from extreme climate events and natural disasters • Create and use climate change insurance schemes
2	Ethiopia	<ul style="list-style-type: none"> • Developing one or more insurance systems to enable citizens, especially farmers and pastoralists, to rebuild economic life following exposure to disasters caused by extreme weather events (floods and droughts) • Also mentioned: effective early warning systems and disaster risk management policies to improve resilience to extreme weather events 	<ul style="list-style-type: none"> • Objective 15: Strengthening drought, livestock and crop insurance mechanisms. This adaptation option will promote preparedness related to risk reduction and create insurance schemes for anticipated climate risks, including drought and flood leading to crop failure. • [Objective 8: Building social protection and livelihood options of vulnerable people. This adaptation option will give special emphasis to women, children and impoverished communities by putting in place safety net schemes, supporting asset creation, improving access to credit, promoting livelihood diversification and arranging voluntary resettlement / migration] • Strategic priority 4 (Implementing effective and sustainable funding mechanisms): Ethiopia has stable and sustainable sources of funding for the rehabilitation/recovery of

			people affected by climate hazards and changes
3	The Gambia	<ul style="list-style-type: none"> An additional area that may become attractive is the design of global disaster relief and disaster insurance facilities to manage climate disasters. Such facilities could include insurance premiums with a grant component that could vary according to the level of development of the countries, such as The Gambia 	
4	Kenya	<ul style="list-style-type: none"> Strengthen the adaptive capacity of the most vulnerable groups and communities through social safety nets and insurance schemes Update - Agriculture: Build resilience of agriculture (crops, livestock and fisheries) systems through sustainable management of land, soil, water, and other natural resources as well as insurance and other safety nets Update - gender, youth and other vulnerable groups: Develop social safety net structures for women, youth and other vulnerable groups within the CCCFs 	<ul style="list-style-type: none"> Gender, vulnerable groups and youth: Strengthen and expand social protection and insurance mechanisms against main climate hazards Agriculture: Develop and up-scale specific adaptation actions - promotion and bulking of drought tolerant traditional high value crops, water harvesting for crop production, index-based weather insurance, conservation agriculture, agro-forestry, and integrated soil fertility management Livestock Development: Conduct capacity-building in indigenous knowledge, livestock insurance schemes, early warning systems, early action, livestock management and breeding
5	Malawi	<ul style="list-style-type: none"> Adaptation actions: Develop financial mechanisms to support crop insurance targeting smallholder farmers 	
6	Morocco	<ul style="list-style-type: none"> Agriculture: Coverage of risk against climatic variations through multi-risk insurance for cereals and legumes covering 1 million hectares 	
7	Niger	<ul style="list-style-type: none"> Niger's initiatives supporting adaptation: The Africa Climate Change Adaptation Programme, which is setting up an index-based insurance prototype to prevent episodes of drought 	
8	Rwanda	<ul style="list-style-type: none"> Expand crop and livestock insurance - with indicators (ha of crops under insurance, number of cows under insurance) 	
9	Palestine		<ul style="list-style-type: none"> Adaptation measures - agriculture: There is also a need to develop institutional

			capacities for agricultural insurance and compensation. A structure is already in place (Palestinian Disaster Risk Reduction and Insurance Fund), but capacities to operate it need to be developed
10	Senegal	<ul style="list-style-type: none"> • Upscaling of existing insurance mechanisms in the agricultural sector • Promotion of livestock insurance 	
11	Tanzania	<ul style="list-style-type: none"> • Protecting smallholder farmers against climate related shocks, including through crop insurance. • Promoting development of livestock insurance strategies. 	
12	Tunisia	<ul style="list-style-type: none"> • Introducing a climate monitoring and early warning system as well as an insurance mechanism against climatic hazard due to climate change 	
13	Bhutan	<ul style="list-style-type: none"> • Promote climate resilient agriculture to contribute towards achieving food and nutrition security through: Initiating crop insurance programs against climate induced extremes • Promote climate-resilient livestock farming practices to contribute towards poverty alleviation and self sufficiency through: Livestock insurance against climate induced extremes 	
14	Fiji	<p>No explicit mentioning of insurance or climate and disaster risk financing, but:</p> <ul style="list-style-type: none"> • Fiji is proactively creating and refining policies, institutions and budgetary systems that can mobilize resources toward climate change and disaster risk management activities • NDC Update: ... Fiji is committed to taking proactive steps to reduce its vulnerability and enhance the resilience of its communities, environment and economy. This is being done through developing policies, institutions and budgetary systems for mobilising resources toward climate change and disaster risk management, including a focus on developing domestic 	<ul style="list-style-type: none"> • In context of horizontal integration - Adaptation measure 8.2: Ensure that finance and planning institutions play a central role in strategic, whole-of-country approaches for climate change and disaster resilient development, and that all opportunities for financial and technical support, climate change financing and insurance are pursued, with support from regional agencies • In context of infrastructure - Adaptation measure 15.B6: Enhance insurance protection of key energy assets as part of the broader Disaster Risk Financing Strategy of Government

		<p>capacities and on transparent communication and robust monitoring systems so as to ensure equity, justice, inclusion, transparency, and accountability in all climate actions.</p>	<ul style="list-style-type: none"> • In context of resource mobilization - Adaptation measure 11.13: Support micro, small and medium enterprises to have and implement contingency planning and continuity plans to leverage their support to address and manage environmental and climate risks • In context of adaptation barriers (financial barriers): The incorporation of risk transfer mechanisms and contingency finance into development planning processes would partially alleviate the use of scarce resources at both national and household level being devoted towards disaster recovery efforts rather than prevention and risk reduction
15	Kiribati	<ul style="list-style-type: none"> • The Government of Kiribati intends to explore options for innovative and coordinated financing to implement the KJIP and community-based adaptation plans from varied sources such as multilateral and bilateral donors and regional and national funding mechanisms. Innovative financing approaches and operations will be explored, including options such as microfinance, carbon levies, subsidies, soft loans, emergency funds, sovereign insurance, contingent credit, catastrophe bonds, and intergovernmental risk insurance. 	<ul style="list-style-type: none"> • Result/Adaptation priority 3.3 - Strengthening and greening the private sector, including SMEs: Private sector incorporates climate change and disaster risks into its strategic and business plans and explore options to transfer risks to third parties (micro insurance) to protect local businesses from loss of business and/or profit due to damage caused by fire, inundations, storms, coastal erosion, and tsunami • Result/Adaptation priority 6.5 - Promoting sound and reliable infrastructure development and land management: Establish (for unavoidable climate impacts) financial mechanisms to address the risks facing community and public assets (with a focus on climate risk insurance and building on existing initiatives and programmes)
16	Maldives	<ul style="list-style-type: none"> • Food security: Strengthen existing climate risk insurance mechanism to protect the farmers and reduce the income losses from extreme weather events. • Food security: Strengthen fisherman insurance mechanism to ensure minimum monthly 	

		<p>income from fishing for lost fishing during extreme events</p> <ul style="list-style-type: none"> • Establish an insurance mechanism to reduce the impacts on the tourism sector through risk sharing and risk management • Update - Agriculture and Food security: Strengthen existing climate risk insurance mechanisms for building resilience against the loss of assets, livelihoods due to extreme events and enhancing relief efforts in the post disaster period taking into account national food and nutrition security • Update - Tourism: Establish an insurance mechanism to reduce the impacts on the tourism sector through risk sharing and risk management • Update - Fisheries: Strengthen insurance schemes to enhance resilience of small-scale fishers and fishing industry to cover against losses due to extreme events and anomalies, ensuring a minimum monthly income for lost fishing days especially for small-scale fishers. • Update - DRM: Facilitate the promotion and participation of the public and private sector in the disaster insurance scheme 	
17	Marshall Islands	<ul style="list-style-type: none"> • Protection: Urgent need to expand coastal protection measures and investments, complete and implement the new building code, strengthen food and water security, and develop more formal financing mechanisms for both disaster risk reduction and post-disaster response and recovery 	
18	Mongolia	<ul style="list-style-type: none"> • Establish a system providing social safeguard, insurance and prevention measures to reduce the vulnerability of social groups and build their resilience to climate change impacts by identifying groups vulnerable to climate change. 	
19	Papua New Guinea	<ul style="list-style-type: none"> • Food security: Disaster risk management in agriculture (agriculture insurance, probing an indemnity insurance framework, weather index setup, linking with multi-hazard 	

		<p>early warning systems, etc.) is needed</p> <ul style="list-style-type: none"> • Inland flooding: Insurance and private sector support required 	
20	Philippines	<ul style="list-style-type: none"> • Capacity and capability are needed in the field of climate and natural hazard modeling, science-based risk and vulnerability assessment as well as risk management measures including risk sharing and risk transfer mechanisms. 	
21	Sri Lanka	<ul style="list-style-type: none"> • Introduction of possible insurance schemes to recover the loss and damage to livelihood, properties, infrastructure, agriculture and fisheries, and other affected sectors due to adverse impacts of climate change • Analysis of total loss and damage of climate induced disasters from 2000 and the gap that was not compensated/recovered. This includes making recommendations to establish a mechanism at the national level which will contribute to the Warsaw International Mechanisms for Loss and Damage in an effective and efficient manner 	<ul style="list-style-type: none"> • Cross-cutting needs of adaptation: Carry out a study to explore the possibilities for application of market-based instruments to motivate adaptive actions and identify and assess feasibility of introducing innovative risk transfer tools (e.g. insurance schemes)
22	Timor Leste	<ul style="list-style-type: none"> • Would like to enhance understanding, actions and support on areas including comprehensive risk assessment and management, risk insurance and risk transfer, rehabilitation, early warning systems, emergency preparedness, slow onset events, risk insurance facilities like crop insurance; events involving permanent and irreversible loss and damage; non-economic losses, and resilience of communities, livelihoods and ecosystems 	
23	Vietnam	<ul style="list-style-type: none"> • Develop mechanisms, policies, and strengthen the insurance system, and share climate and disaster risks; • NDC Update: The insurance market was recently formed but has not yet fully developed, especially with regards to natural disaster and climate change insurance due to their high risks - Need to review, 	

		adjust and complete the institutions on banking and credit in line with the objectives of low-emission development and develop measures to promote green banking and credit products	
24	Colombia		<ul style="list-style-type: none"> • Adaptation actions: Solidarity and risk sharing schemes, including social safety nets, social networks, alternative ways to transfer risk and financial insurance • Funding mechanisms needed: Risk transfer, securities, contingent credit, such as the FNGRD Disaster Management Sub-account, the FNGRD Recovery Sub-account and the FNGRD Sub-Account for Financial Protection • Other: Insurance and financial products must be designed to transfer the risk, and entities must be trained to implement them, as well as policies must be designed to make insurance compulsory or to design fiscal schemes
25	Dominican Republic	<ul style="list-style-type: none"> • Water security: Facilitate access to an insurance system for damages related to climatic events for the different structures and components of human settlements 	
26	Grenada		<ul style="list-style-type: none"> • Investigate agriculture/fishing insurance options and new risk transfer instruments and develop respective policies and incentives to (meet objective 4) enhance social protection for farming and fishing communities (Includes indicative cost estimate of USD 2 million) • Develop a disaster management investment fund to support farmers to mitigate and respond to climate impacts and challenges to (meet objective 6) mobilize funding for further resilience building measures to ensure food security
27	Haiti	<ul style="list-style-type: none"> • Support to the insurance sector for the coverage of losses from natural and climatic disasters • Increasing the resilience of public investment by improving 	

		understanding and assessing the risks posed by threats and climatic conditions	
28	St Lucia		<ul style="list-style-type: none"> • Continued membership of CCRIF-SPC, and continued engagement with the LPP as well as the development of local micro-insurance schemes and the participation in emerging cat-bond insurance platforms, including: • Facilitate the development of partnerships for active involvement of the private sector in community climate resilience building (e.g. agriculture insurance) • Develop and expand social benefits, insurance (life, medical and livelihood protection insurance schemes), pension and compensation schemes for climate related impacts for fishers and their families • Develop legislation reforms to link property insurance, construction quality and climate risk level of the property location • Potential actions: Continued membership in CCRIF-SPC • Potential actions: Development of local micro-insurance schemes (e.g. agricultural/crop insurance to provide insurance protection for farmers against losses associated with climate change) • Potential actions: Participation in emerging catastrophe bond insurance platforms that pool risks and improve planning responses to catastrophic events (e.g. World Bank MultiCat Programme) • Potential adaptation action: Where practical, accepting the risk of high-frequency and low-severity risks where costs of risk transfer and reduction would outweigh risk retention costs (e.g. flooding associated with high intensity precipitation) • Potential adaptation action: Establishing contingency funds with flexible and rapid dispersal systems

			<ul style="list-style-type: none">• Potential adaptation actions: Improving systems to facilitate remittance• Potential adaptation actions: Developing and strengthening savings and loan associations to assist financially vulnerable groups to safely store money or access loans
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