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Elaboration of the sources of and modalities for accessing financial support for addressing loss and damage

Technical paper by the secretariat

Summary

This technical paper reviews existing sources of financial support, including the Financial Mechanism and a broader set of funds and institutions which channel financial support relevant for addressing loss and damage associated with climate change impacts. The paper briefly explores how “addressing loss and damage” is conceptualized in order to provide a basis for examining sources of relevant financial support. It also discusses current limitations and challenges in elaborating finance for addressing loss and damage. The paper concludes with reflections on insights gained from the elaboration of such financial support and areas for potential further analysis which may contribute to further discussion on finance for addressing loss and damage.

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Abbreviations and acronyms

ADB	Asian Development Bank
AF	Adaptation Fund
AfDB	African Development Bank
ARC	African Risk Capacity
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CIFs	Climate Investment Funds
COP	Conference of the Parties
DFI	development finance institution
DRR	disaster risk reduction
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EWS	early warning system
FIP	Forest Investment Program
GCF	Green Climate Fund
GHG	greenhouse gas
GEF	Global Environment Facility
GFDRR	Global Facility for Disaster Reduction and Recovery
IDB	Inter-American Development Bank
LDC	least developed country
LDCF	Least Developed Countries Fund
OECD	Organisation for Economic Co-operation and Development
OECD DAC	Organisation for Economic Co-operation and Development Development Assistance Committee
ODA	official development assistance
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
MDB	multilateral development bank
MDTF	multi-donor trust fund
NAP	national adaptation plan
NAPA	national adaptation programme of action
NDC	nationally determined contribution
NGO	non-governmental organization
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
REDD	reducing emissions from deforestation and forest degradation in developing countries
SB	sessions of the subsidiary bodies
SBI	Subsidiary Body for Implementation
SDGs	Sustainable Development Goals
SCCF	Special Climate Change Fund
SCF	Standing Committee on Finance
SIDS	small island developing States
UNDP	United Nations Development Programme
WBG	World Bank Group
WFP	World Food Programme
WMO	World Meteorological Organization

I. Introduction

A. Mandate

1. COP 22 recommended that a technical paper be prepared by the secretariat elaborating the sources of financial support, as provided through the Financial Mechanism, for addressing loss and damage as described in relevant decisions, as well as modalities for accessing such support.¹ It further recommended that the technical paper also include an elaboration of finance available for addressing loss and damage as described in relevant decisions, outside the Financial Mechanism, as well as the modalities for accessing it.²

2. The paper serves as an input to the 2019 review of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, which will consider, inter alia, progress on the implementation of the workplan of the Executive Committee of the Warsaw International Mechanism as well as its long-term vision that guides ways in which the Warsaw International Mechanism may be enhanced and strengthened, as appropriate.³

B. Background

3. Recognizing the need to strengthen international cooperation and expertise to understand and reduce loss and damage, including impacts related to extreme weather events and slow onset events,⁴ COP 16 established a dedicated process for the consideration of loss and damage through a work programme under the SBI in the context of the Cancun Adaptation Framework.⁵

4. Under the SBI work programme, Parties explored, among others, a range of approaches embedded in different regional contexts to address loss and damage. The work programme also examined relevant methodologies and data requirements to assess the risk of loss and damage associated with the adverse effects of climate change. The initial technical work inspired the need for comprehensive, inclusive and strategic responses, and led to the establishment of the Warsaw International Mechanism to address loss and damage in developing countries that are particularly vulnerable to the adverse effects of climate change, including extreme events and slow onset events.⁶

5. One of the functions⁷ of the Warsaw International Mechanism is to enhance relevant action and support, including finance, so as to enable countries to undertake actions pursuant to decision 3/CP.18, which are:⁸

(a) Assessing the risk of loss and damage associated with the adverse effects of climate change, including slow onset impacts;

(b) Identifying options and designing and implementing country-driven risk management strategies and approaches, including risk reduction, and risk transfer and risk-sharing mechanisms;

(c) The systematic observation of, and data collection on, the impacts of climate change, in particular slow onset events, and accounting for losses, as appropriate;

¹ Decision 4/CP.22, para. 2(f).

² Decision 4/CP.22, para. 2(g).

³ Decision 4/CP.22, para. 2(c).

⁴ Slow onset events, as identified in decision 1/CP.16, para. 25, include sea level rise, increasing temperature, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.

⁵ Decision 1/CP.16.

⁶ Decision 2/CP.19, para. 1.

⁷ Decision 2/CP.19, para. 5(c).

⁸ Decision 3/CP, 18, para 6.

(d) Implementing comprehensive climate risk management approaches, including scaling up and replicating good practices and pilot initiatives;

(e) Promoting an enabling environment that would encourage investment and the involvement of relevant stakeholders in climate risk management;

(f) Involving vulnerable communities and populations, and civil society, the private sector and other relevant stakeholders, in the assessment of and response to loss and damage;

(g) Enhancing access to, sharing and the use of data, at the regional, national and subnational level, such as hydrometeorological data and metadata, on a voluntary basis, to facilitate the assessment and management of climate-related risk.

6. The Executive Committee guides the implementation of the functions of the Warsaw International Mechanism. As part of initial efforts, the Executive Committee facilitated the diffusion of information related to financial instruments and tools that address the risks of loss and damage.⁹ This included collaborating with the SCF and inviting it to dedicate one of its annual forums to the theme of such financial instruments.

7. The SCF Forum on financial instruments that address the risks of loss and damage took place in September 2016¹⁰ and discussed broadly four types of financial approaches, instruments and tools: (1) risk transfer schemes; (2) catastrophe and resilience bonds; (3) social protection schemes; and (4) contingency finance. To inform the SCF Forum, the Executive Committee engaged Parties and relevant organizations in collecting information on best practices, challenges and lessons learned from existing financial instruments at all levels that address the risk of loss and damage. The wealth of information was compiled¹¹ and synthesized¹² under the categories of catastrophe risk insurance and other risk transfer and pooling, climate-themed bonds, catastrophe bonds, social protection schemes, contingency finance and innovative financial instruments.

8. Further work followed to address gaps in the understanding of approaches to address loss and damage, including a preliminary stocktaking of financial instruments and tools for addressing impacts of slow onset events¹³ and the establishment of a knowledge hub on insurance solutions, the Fiji Clearing House for Risk Transfer.¹⁴ The Fiji Clearing House for Risk Transfer houses an interactive facility, RISK TALK, which can provide Parties and other practitioners with tailor-made information on risk transfer solutions to climate change from experts from all over the world.¹⁵

9. The initial technical work led to the recognition that (1) challenges relating to loss and damage require a broad range of responses at different levels, including information and knowledge building, the development of adequate policy and regulatory environments and practical actions; (2) these responses extend to several domains, including disaster risk management, risk transfer and pooling, contingency and humanitarian measures, adaptation to climate change and climate-resilient development; and (3) financing is needed for all these responses.

⁹ As part of the activities under action area 7 of the initial two-year workplan of the Executive Committee, contained in document FCCC/SB/2014/4, annex II.

¹⁰ See <https://unfccc.int/sites/default/files/resource/2016%20-%20report.pdf>.

¹¹ See <https://unfccc.int/topics/resilience/resources/financial-instruments#eq-7>.

¹² See https://unfccc.int/sites/default/files/aa7_d_information_paper.pdf.

¹³ See part 2, section D, of a working draft compendium and discussion points for assessing and developing recommendations to improve knowledge to understand, and capacity to address, slow onset events and their impacts, including the capacity of regional agencies; available at <https://unfccc.int/sites/default/files/reference-document-item-4.pdf>.

¹⁴ See <http://unfccc-clearinghouse.org/>. The Fiji Clearing House for Risk Transfer was launched at COP 23 to serve as a repository for information on insurance, risk pooling and transfer approaches in order to facilitate the efforts of Parties to develop and implement comprehensive risk management strategies.

¹⁵ RISK TALK was developed in collaboration with the InsuResilience secretariat and using the Starmind technology.

10. As part of the guidance relevant to enhancing and strengthening the Warsaw International Mechanism, COP 22 recommended that the secretariat prepare the present paper (see para. 1 above). With a view to informing the preparation of the paper, the Suva expert dialogue was held to explore a wide range of information, inputs and views on ways for facilitating the mobilization and securing of expertise, and enhancement of support for averting, minimizing and addressing loss and damage.¹⁶

11. COP 22 also recommended that the secretariat be assisted by the Executive Committee in determining the scope of the technical paper with a view to making it available to Parties by the SB 50.¹⁷ The Executive Committee, in consultation with the SCF, considered the scope of the paper at its eighth meeting (September 2018).¹⁸

12. In addition, the Executive Committee invited Parties and relevant organizations to provide information on the sources of financial support they are providing for the planning and implementation of integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change.¹⁹ Eight submissions have been received to date.²⁰

C. Structure

13. Chapter II below provides a framing for the elaboration of available sources of finance, on the basis of the previous technical work carried out in the context of the workplan of the Executive Committee, inputs mentioned in chapter I.B above and the relevant mandates from the COP. This is done through an explanation of the conceptual background on loss and damage associated with climate change impacts, including extreme events and slow onset events.

14. Chapter III elaborates the typologies of approaches to address loss and/or damage and examples of ongoing actions that illustrate various risk management approaches which are currently being undertaken. This is followed by a discussion of the types and sources of financial instruments under and outside the Financial Mechanism which currently channel financial support to these approaches.

15. Chapter IV provides a set of brief description and stated activity areas as well as preliminary analysis on the relevance of UNFCCC funds, multilateral funds and banks, domestic expenditure and other finance for addressing loss and damage. The annexes provide information on modalities of access and on performance and reporting of these sources of finance.

16. Chapter V, informed by chapter VI and the annexes, presents a summary of observations, including initial key findings including effectiveness of available finance in responding to emerging needs of developing countries for managing residual impacts of climate change. It also contains possible areas for further analysis.

II. Emerging conceptualization of addressing loss and damage and underlying challenges

17. This chapter first provides an overview of the broad context of the international climate policy that encompasses the current scope of loss and damage in the UNFCCC

¹⁶ The Suva expert dialogue was organized under the guidance of the Chair of the SBI and the Executive Committee, and took place during SB 48. The submissions were invited by the Executive Committee in the context of activity 1(a) of strategic workstream (e) of the Executive Committee's five-year rolling workplan, contained in document FCCC/SB/2017/1/Add.1, annex, to inform the Suva expert dialogue.

¹⁷ Decision 4/CP.22, para. 2(h).

¹⁸ For the outcome of this consideration, see

https://unfccc.int/sites/default/files/resource/ToR_TP_%20Final_210918_version%200900hrs.pdf.

¹⁹ See <https://unfccc.int/topics/adaptation-and-resilience/workstreams/loss-and-damage-ld/collaboration-and-outreach/call-for-submissions-the-executive-committee-of-the-warsaw-international-mechanism>.

²⁰ Available at <https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx>.

process. It goes on to explain how a broad spectrum of climate actions contribute to addressing loss and damage through a discussion on an emerging understanding of climate risks that may lead to long-term, large-scale or irreversible impacts despite best pre-emptive efforts to avoid setbacks in developmental gain.

A. Broad climate policy context

18. The objective of the Convention as set out in its Article 2 is to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

19. The Paris Agreement further sets the scene for international efforts on climate change in the context of sustainable development and efforts to eradicate poverty, including by holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.²¹ It also provides for the enhancement of understanding, action and support on a cooperative and facilitative basis with respect to loss and damage.²²

20. In the broadest understanding, all efforts being taken to curb the global average temperature increase and to adapt to the adverse effects of climate change can contribute to preventing or reducing the risks of loss and damage associated with climate change borne by societies and individuals.

21. The SCF biennial assessment and overview of climate finance flows reports offer an overview of the evolving landscape of financial resources for supporting the broad spectrum of climate actions.

B. Emerging understanding of the scope of loss and damage

22. Loss and damage arising from the adverse effects of climate change can include those related to extreme weather events and slow onset events such as sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification. The types of knowledge, action, support and approaches to address loss or damage, as identified under the Warsaw International Mechanism to date, vary considerably and are wide in scope.

23. Article 8 of the Paris Agreement identifies the following areas of cooperation and facilitation to enhance understanding, action and support: EWS; emergency preparedness; slow onset events; events that may involve irreversible and permanent loss and damage; comprehensive risk assessment and management; risk insurance facilities, climate risk pooling and other insurance solutions; non-economic losses; and resilience of communities, livelihoods and ecosystems.

24. The workplan of the Executive Committee pursues comprehensive risk management approaches that encompass disaster risk management, social protection, recovery and rehabilitation towards resilience of countries and communities across different time and spatial scales.

25. Initial technical findings under the SBI work programme on loss and damage led to an acknowledgement in the UNFCCC process that loss and damage includes, and in some cases involves more than, that which can be reduced by adaptation.²³ No further differentiation of the term “addressing loss and damage” has been commonly understood in the UNFCCC process to date. Similarly, the scope of the present paper as determined by the

²¹ Article 2, para. 1(a), of the Paris Agreement.

²² Article 8, para. 3, of the Paris Agreement.

²³ Decision 2/CP.19, preamble.

Executive Committee also takes an inclusive and broad view of measures as “addressing loss and damage”, without delineating from disaster risk management for weather events, adaptation to climate change or humanitarian or development efforts.

26. As part of the overall efforts for strengthening support systems to assist developing countries to become climate-resilient in the context of the goals of the Paris Agreement, the loss and damage discourse in the UNFCCC process contributes to advancing an understanding of interplay among preventive measures, pre-emptive efforts (such as planned adaptation) and management of residual impacts. Once a clear narrative is fostered, it would lead to a better understanding of how different stages of the continuum of efforts to address the adverse effects of climate change can most optimally be financially supported.

27. This may necessitate (1) a better articulation of particular aspects of the adverse effects of climate change that an intervention is intended to prevent or reduce, and (2) subsequent assessment of avoided loss or damage as a result of implementing such interventions. It will also require, as a first step, identifying the at-risk assets (physical, environmental, societal, non-economic, etc.) for which measures are planned or implemented pre-emptively to avoid losing or damaging such assets.

C. Underlying challenges

28. Finance associated with loss and damage is not currently explicitly tracked and reported as a distinct category. Neither conventional financial landscape currently categorizes certain types of finance as ‘finance for addressing loss and damage’ nor the UNFCCC and other multilateral funds or typical bilateral financial support is labelled as such. The lack of demarcation of loss and damage, absence of common understanding and of classification or tagging of associated finance pose significant challenges in the collection, aggregation of financial information or elaboration of sources of finance for addressing loss and damage. Paragraphs 65–67 below provide an additional explanation of how the paper addresses this fundamental challenge while striving to inform the review of the Warsaw International Mechanism, with a view to advancing the narrative on strengthening support for addressing loss and damage.

29. While noting that effective action for limiting GHG emissions remains a fundamental factor in reducing the risk of experiencing climate change impacts or avoiding loss or damage associated with the adverse effects of climate change, this paper does not elaborate on mitigation finance.

30. Consequently, in elaborating finance associated with loss and damage, the paper will use proxies to illustrate how financial support as currently provided through the UNFCCC funds and by others has relevance in addressing loss and damage, with the finance often being tagged for adaptation, DRR or associated development, sectoral or humanitarian efforts.

III. Typologies of approaches for addressing loss and damage

31. This chapter provides generic typologies of approaches that are considered to address loss and damage based on elements identified under the Warsaw International Mechanism. It also includes examples of actions to address loss and damage. In this paper, the term “approaches” is used broadly to include actions, measure and practices.

A. Generic overview

32. Addressing loss and damage encompasses a wide range of approaches and actions that vary depending upon the circumstances, which include the demography, geography and socioeconomic status of the region, country or community experiencing the impacts and the types of impacts experienced. In addition to national trends and circumstances, countries’ development priorities and risk tolerance can also influence the approaches to addressing loss or damage taken domestically.

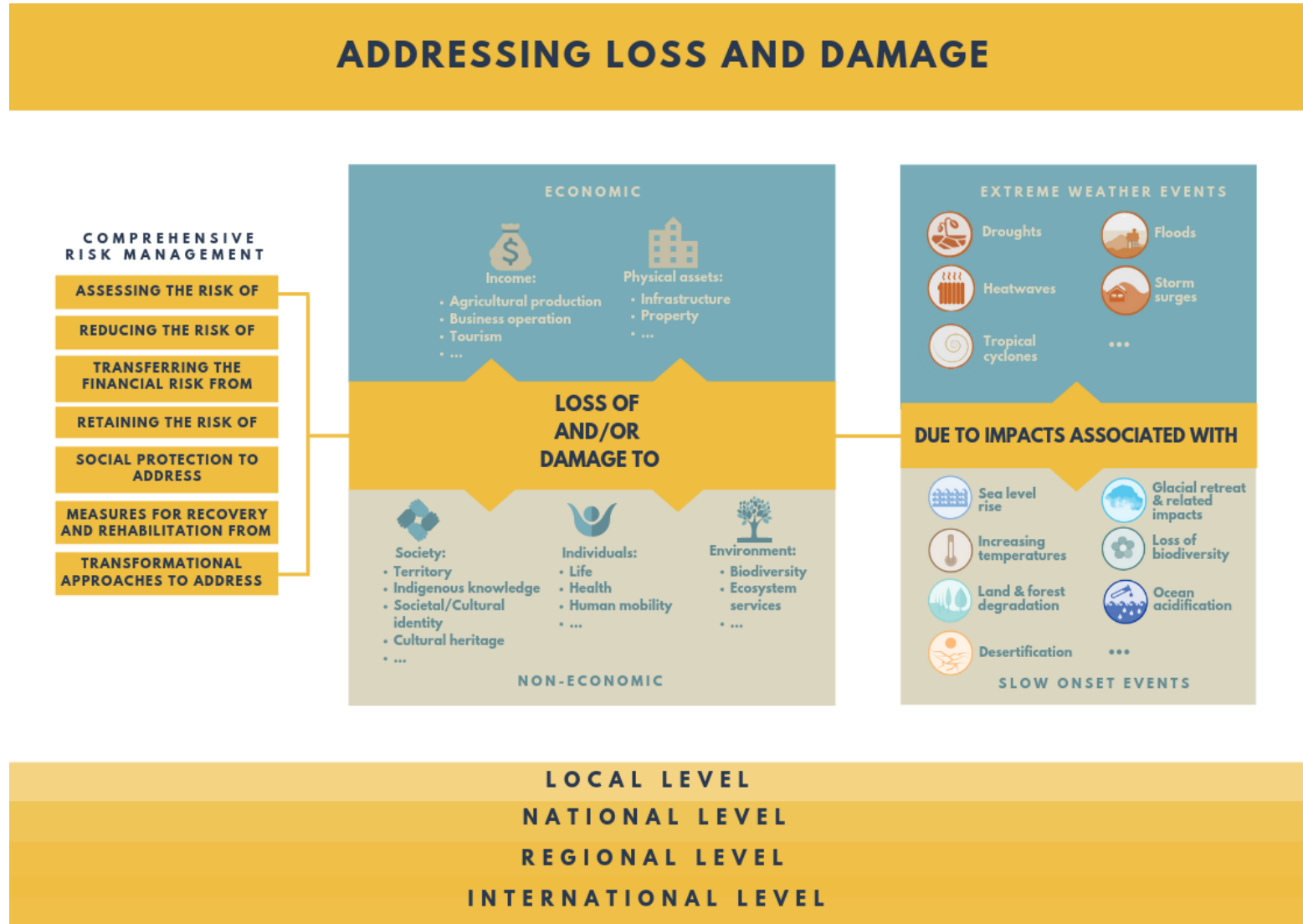
33. Figure 1 displays a general typology of addressing loss and damage, demonstrating how countries and communities can pursue various broad types of action depending on the dimension of risks management being sought; the type of loss or damage to be avoided; the type of climate event(s) that result in or may result in the loss or damage; and the level at which action is taken or finance is directed. Reading the boxes in the figure from left to right yields a set of descriptions showing how a range of factors interact with one another to construct broad categories of approaches to address loss and damage. For example, one approach is addressing the risk of loss of income from agricultural production due to the adverse effects associated with drought at the local level.

34. While this figure offers a sense of the diversity inherent in addressing loss and damage, it nonetheless masks underlying nuances that further influence how approaches to address loss and damage materialize in practice. For example, addressing an incremental process due to climate change, which are characterized collectively as slow onset events under the Warsaw International Mechanism, may encompass a wider range of approaches than does addressing a sudden onset hydrometeorological hazard which are often clustered as extreme weather events under the Warsaw International Mechanism.

35. Moreover, the elements in figure 1 interact with one another in a variety of ways that are not depicted by the connecting lines, including several significant interactions between elements within the same vertical clusters. For example, slow onset events may affect the frequency and intensity of extreme weather events. Additionally, there is a variety of interactions that may amplify either positive or negative effects. This could include loss or damage impacting the environment as well as impacting individuals. An example of amplifying positive effects could include actions taken to reduce the risk of loss and damage to physical infrastructure (e.g. housing, hospitals) simultaneously reducing the risks of non-economic losses impacting individuals (e.g. lives, health) or losses impacting society (e.g. in the case of displacement, loss of indigenous knowledge, social identities).

36. From a technical perspective, approaches to address elements of “loss” may differ from those approaches that address “damage”. For this reason, this paper breaks down the phrase “addressing loss and damage” in those cases where greater specificity adds depth to the consideration of possible approaches.

Figure 1
 General typologies of approaches to address loss and damage



B. Examples of actions to address loss and damage

37. Building on the typology above, this section offers insights into reflections by Parties and other stakeholders on their current practices, plans and needs in terms of approaches to address loss and damage. In addition to being informed by the Suva expert dialogue, the information in this section draws on two different types of sources. First, it captures information contained in three sets of submissions made in the context of the implementation of the workplan of the Executive Committee.²⁴

38. Second, this section also contains illustrative information extracted from submitted NAPs²⁵ and NDCs.²⁶ These documents help to illustrate how countries plan to pre-empt loss or damage associated with climate change impacts by undertaking adaptive measures that would contribute to averting, minimizing or addressing residual impacts. Of the NDCs that mention loss or damage as complements to their broader adaptation and mitigation strategies and objectives, the majority cited economic loss and/or damage associated with past and projected impacts of climate variability. Some NDCs also present other relevant information, such as measures with the potential to reduce projected costs, losses and/or damage due to climate impacts, including aligning development, adaptation and DRR and enhancing risk sharing and transfer.

1. Assessing the risk²⁷

39. Countries are already making use of risk assessment methods to inform their responses to climate change impacts, as highlighted in the Suva expert dialogue. In advancing risk assessment relevant to averting, minimizing and addressing displacement, among other risks related to the adverse impacts of climate change, ongoing work in the areas of open-source risk assessment tools to support decision-making, national risk profiling and probabilistic risk modelling,²⁸ is being viewed as useful.

40. Moving beyond what has already been deployed, various countries have outlined, as part of their climate change strategies, planned actions related to risk assessment which may be relevant in the context of loss and damage. These include developing methods to identify physical vulnerabilities on infrastructure and human settlements²⁹ and those in relation to preventing health risks, such as respiratory pathologies linked to climate change.³⁰

41. Assessing the risks that climate change impacts pose to society's assets at a national and regional scale, including physical and livelihood assets, is also perceived to be a type of

²⁴ These concern (1) the types and nature of actions to address loss and damage for which finance may be required as perceived by countries and organizations engaged in the work on addressing loss and damage; (2) current practices, challenges and lessons learned from existing financial instruments at all levels that address the risk of loss and damage; and (3) the sources of financial support that Parties and relevant organizations are providing for the planning and implementation of integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change.

²⁵ A total of 13 NAPs have been submitted to date. While the analysis of these documents does not, therefore, paint a complete picture of how approaches to address loss and damage are reflected, they nonetheless offer some illustrative examples.

²⁶ A total of 187 NDCs have been submitted to date.

²⁷ For a description of various dimensions of the comprehensive risk assessment in the context of loss and damage, see the draft compendium developed in the context of the workplan of the Executive Committee; available at https://unfccc.int/sites/default/files/compendium_march_2017.pdf.

²⁸ See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf.

²⁹ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Costa%20Rica%20First/INDC%20Costa%20Rica%20Version%202%200%20final%20ENG.pdf>.

³⁰ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Tunisia%20First/INDC-Tunisia-English%20Version.pdf>.

action which may require finance.³¹ This includes the development of an inventory of assets at risk, acquiring information on climate-related hazards that give rise to risks and acquiring information on the stakeholders likely to be impacted and the scale and time frame associated with these climate impacts.³²

2. Reducing the risk

42. Many adaptation plans and contributions include structural risk reduction measures that may lead to avoiding losses or damage. A number of the non-structural risk reduction measures mentioned would contribute to the development and implementation of climate change compatible building and construction codes to minimize damage to infrastructure and threats to individuals' lives and health from flooding.³³ They also address displacement and migration of people and communities in the context of climate change impacts, highlighting various options to minimize displacement,³⁴ including promoting livelihood diversification, establishing social protection such as safety net schemes, improving access to credit and arranging for voluntary migration; developing policies through collaboration, including those that reduce the need for human mobility in the first place; providing support and protection for displaced persons; and incorporating non-economic valuation into economic decision-making as potential options to address and reduce displacement.

43. Enhancement of EWS is another type of actions to reduce risks of loss or damage, including displacement. Examples include improving forecasts and weather information services in disaster prone areas, and developing and strengthening multi-hazard EWS to help to protect lives, health and property from extreme events.³⁵ Scaling up the use of climate information and EWS for both extreme and slow onset events is also effective for reducing climate risk and avoiding loss or damage in various sectors, including agriculture, health and transport (see box 1 for an example).³⁶

44. Connecting early warning with early action for reducing risks to avoid potential impacts, the Suva expert dialogue explored, among others, an emerging practice on forecast-based financing. This enables taking action before extreme events strike a society, thus more effectively mitigating climate shocks than conventional risk finance instruments which disburse finance in the aftermath of disasters. By utilizing the specific climate-related hazards as a trigger for dispersing finance, a forecast-based financial approach yields multiple benefits, including strengthening the early warning communication capacity, bridging the gap between climate information to early actions and reducing the need for financial aid in the aftermath of the events, which is far more expensive than the preventive methods.³⁷

Box 1

Measures for reducing climate and disaster risks in Brazil's national adaptation plan

Brazil's NAP includes several measures for reducing risk associated with climate change and disasters in various sectors. Among the measures already in place are the system for surveillance of environmental health risks associated with disasters and the National Strength of the Unified Health System in the health sector to reduce the impacts of disaster damage on human health. In the Ministry of Environment, a monitoring system for the Brazilian coast was approved in December 2011 to monitor continuous flows of oceanographic and weather variables. The National Natural-Disaster Monitoring and

³¹ See

<https://unfccc.int/sites/default/files/resource/AGN%20Submission%20on%20matters%20related%20to%20financing%20of%20actions%20to%20address%20L&D.pdf>.

³² See http://unfccc.int/files/adaptation/application/pdf/20180228_submission_ailac_1&d_vf.pdf.

³³ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/INDC-Ethiopia-100615.pdf>.

³⁴ See Brazil's, Burkina Faso's, Ethiopia's, Kenya's, Sudan's and Saint Lucia's NAPs at <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>.

³⁵ See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901161036---NorwayExComSourcesSupport_jan2019.pdf.

³⁶ See Brazil's, Burkina Faso's, Ethiopia's, Kenya's, Sri Lanka's and Sudan's NAPs at <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>.

³⁷ See <https://www.forecast-based-financing.org/>

Early-Warning System was also established in Brazil in response to the increase in occurrences of natural disasters in recent years.

Source: See, for example, <https://www4.unfccc.int/sites/NAPC/Documents/Parties/Brazil%20NAP%20English.pdf>.

45. While a wide range of risk reduction efforts are already planned or in progress, some countries note that finance may be required to further advance risk reduction efforts. These include (1) developing multi-hazard impact-based forecasting services;³⁸ (2) improving river water level control systems and updating hydrologic infrastructure to reduce the risk of flooding;³⁹ (3) improving agronomic practices through the use of fast maturing and drought-resistant crop varieties or building sand dams, shallow boreholes and drip irrigation systems to improve access to water in order to reduce the risk of droughts;⁴⁰ and (4) in relation to sea level rise, ex situ conservation of endangered species, the resettlement of people, and construction of dykes and other protective infrastructure.⁴¹

3. Retaining the risk

46. Risk retention in the loss and damage context involves absorbing risk by those faced with potential adverse impacts. Examples of actions around risk retention that countries have outlined include encouraging informal savings for industry and commerce,⁴² and establishing contingency funds with flexible and rapid disbursement systems – which draw from bilateral, multilateral, national and regional funding and financing sources – that target actions ranging from the community to the national level.⁴³

47. Efforts to advance risk retention actions are ongoing, including initiatives that promote, facilitate and enable disaster preparedness through savings, contingent credit,⁴⁴ disaster relief funds, catastrophe bonds and ex post bonds at various levels.⁴⁵

48. Examples of actions to support countries in retaining climate risks that are perceived as requiring finance include developing or enhancing contingency planning and protocols, including evacuation plans,⁴⁶ and developing national- or local-level emergency finance reserves or contingency funds to help countries to cope with both economic and non-economic loss and damage.⁴⁷ Utilization of these instruments, although fast disbursing and helping to bolster preparedness for disasters, can nonetheless pose challenges to countries already shouldering a significant debt burden, particularly where the repayment periods are difficult for countries to manage.

4. Social protection and transformational approaches

49. In their adaptation planning efforts, countries recognize that social protection and livelihood options, such as productive safety net programmes, are required to ensure basic

³⁸ See <https://unfccc.int/sites/default/files/resource/PHL%20Submission%20to%20WIM.pdf>.

³⁹ As footnote 31 above.

⁴⁰ As footnote 31 above.

⁴¹ As footnote 31 above.

⁴² See https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nigeria%20First/Approved%20Nigeria's%20INDC_271115.pdf.

⁴³ See https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kiribati%20First/INDC_KIRIBATI.pdf.

⁴⁴ See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf.

⁴⁵ See https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/nl-03-16-excom_eu_submission.pdf.

⁴⁶ See <https://unfccc.int/sites/default/files/resource/PHL%20Submission%20to%20WIM.pdf>.

⁴⁷ See <https://unfccc.int/sites/default/files/resource/Vanuatu%20Submission%20Action%20and%20Support%20FINANCE%20for%20Loss%20&%20Damage.pdf>.

safety for vulnerable groups and communities.⁴⁸ Current efforts include (1) initiatives working to integrate climate information into social protection decision-making at the regional, national, subnational and community level in order to help make it more responsive to climate shocks;⁴⁹ and (2) safety net programmes for vulnerable populations⁵⁰ and livelihood diversification or transformation programmes, such as fishing to agriculture or production to services.⁵¹ These actions are also perceived as part of actions to address loss and damage for which finance may be required.

50. Those approaches that entail changes to fundamental attributes of relevant systems, including technological, biological, social-ecological, value, regulatory or financial systems, can be transformational in addressing loss or damage.⁵² In this regard, examples of actions can include those with impacts at a greater intensity or scale, often when such action is new or new to the location where it is implemented, or when they involve a change in the underlying context or condition, such as the relocation of a community.

51. Pursuing transformational change to address loss and damage from both extreme and slow onset events is viewed as requiring finance for technology transfer, capacity-building institutional and policy changes, and investment in infrastructure. These investments can then help to advance transformational shifts that empower communities and local governments to incorporate climate change information and risk management into daily decision-making. This might include adopting ecosystem-based adaptation practices at the national level in sectors such as livestock in order to restore and protect ecosystem services, or adopting policies at the national level that promote sustainable land management as a tool to minimize land degradation and cope with the adverse impacts of slow onset and extreme events through actions such as training farmers and establishing monitoring, evaluation and reporting systems.⁵³

5. Transferring the financial risk

52. Risk-based finance tools contribute to managing the financial losses associated with a spectrum of climate change impacts. Risk transfer solutions also regularly feature in countries' adaptation plans and strategies as a means to strengthen adaptive capacity⁵⁴ and protect, for example, individuals and their livelihoods, and physical assets such as property. Those include developing and implementing a wide range of insurance systems to enable farmers, pastoralists and other affected citizens to rebuild and recover following exposure to

⁴⁸ See https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Kenya_NAP_Final.pdf; <https://www4.unfccc.int/sites/NAPC/Documents/Parties/NAP-ETH%20FINAL%20VERSION%20%20Mar%202019.pdf>; and https://www4.unfccc.int/sites/NAPC/Documents/Parties/PNA_Version_version%20finale%5bTransmission%5d.pdf.

⁴⁹ See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf.

⁵⁰ See, for example, CIGI's, FAO's, USA's, EU's, MCH's and WFP's submissions at <https://unfccc.int/topics/resilience/resources/submission-of-information-on-financial-instruments>.

⁵¹ See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf; https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/submission_by_the_world_food_programme_10march16.pdf; [https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/care_submission_loss_and_damage_finance_\(final_11_03_16\).pdf](https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/care_submission_loss_and_damage_finance_(final_11_03_16).pdf); and <https://unfccc.int/sites/default/files/resource/Vanuatu%20Submission%20Action%20and%20Support%20FINANCE%20for%20Loss%20&%20Damage.pdf>.

⁵² See https://unfccc.int/sites/default/files/compendium_march_2017.pdf.

⁵³ See <https://unfccc.int/sites/default/files/resource/20180312%20Submission%20Uruguay%20Loss%20and%20Damage.pdf>.

⁵⁴ See https://www4.unfccc.int/sites/ndcstaging/SubmittedDocuments/Kenya%20First/Kenya_NDC_20150723.pdf.

extreme weather events⁵⁵ through mechanisms such as agricultural insurance schemes,⁵⁶ livestock insurance,⁵⁷ fishermen insurance⁵⁸ and drought insurance.⁵⁹ Countries' future plans also feature the utilization or strengthening of macro-level insurance mechanisms such as regional catastrophe risk insurance⁶⁰ and catastrophe bonds.

53. Building capacity to effectively design and make use of these risk transfer solutions for addressing loss and damage in a complementary manner as part of a comprehensive risk management strategy is perceived as an action for which finance may be required.⁶¹ At a broader level, countries' plans cited efforts to enable and support the deployment of these solutions, such as training extension workers in risk transfer mechanisms and creating farmer field schools to build awareness of agricultural insurance options,⁶² developing institutions for providing insurance⁶³ and developing insurance markets for hydrometeorological risks.⁶⁴ To enable access to these solutions, finance may also be required, in the view of some Parties, for insurance premium subsidies.⁶⁵

C. Types of instruments that channel finance to reported practice in addressing loss or damage

54. This section provides a synopsis of the types of instruments which are currently channelling finance to support approaches to addressing loss or damage laid out in chapter III.A above.

1. Grants

55. Grants are among the most broadly referenced instruments in the submissions mentioned in paragraph 37 above. Currently, grant-based project finance is used as a useful and commonly applied financial tool for addressing loss and damage, often covering multiple risk management approaches. Risk assessment, including data and knowledge collection and analysis for a better understanding of extreme and slow onset events, is the main area supported by grants. Grants also play significant roles in risk reduction, risk transfer

⁵⁵ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/INDC-Ethiopia-100615.pdf>.

⁵⁶ See <https://www4.unfccc.int/sites/NAPC/Documents/Parties/Brazil%20NAP%20English.pdf>; <https://www4.unfccc.int/sites/NAPC/Documents/Parties/SLU-NAP-May-2018.pdf>; https://www4.unfccc.int/sites/NAPC/Documents/Parties/PNA_Version_version%20finale%5bTransmission%5d.pdf; https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Kenya_NAP_Final.pdf; <https://www4.unfccc.int/sites/NAPC/Documents/Parties/NAP-ETH%20FINAL%20VERSION%20%20Mar%202019.pdf>; <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Morocco%20First/Morocco%20First%20NDC-English.pdf>; and <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Malawi%20First/MALAWI%20INDC%20SUBMITTED%20TO%20UNFCCC%20REV.pdf>.

⁵⁷ See Ethiopia's, Kenya's and Burkina Faso's NAPs at https://www4.unfccc.int/sites/NAPC/News/Pages/national_adaptation_plans.aspx.

⁵⁸ See <https://www4.unfccc.int/sites/NAPC/Documents/Parties/Chile%20NAP%20including%20sectoral%20plans%20Spanish.pdf>.

⁵⁹ See footnote 48 above.

⁶⁰ See <https://www4.unfccc.int/sites/NAPC/Documents/Parties/SLU-NAP-May-2018.pdf>

⁶¹ See, for example, https://unfccc.int/sites/default/files/resource/LDC%20submission_March6.pdf; and <https://unfccc.int/sites/default/files/resource/AOSIS%20Submission%20on%20type%20and%20nature%20of%20actions%20to%20address%20loss%20and%20damage%20for%20which%20finance%20may%20be%20required.pdf>.

⁶² <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Pakistan%20First/Pak-INDC.pdf>.

⁶³ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Pakistan%20First/Pak-INDC.pdf>.

⁶⁴ See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Mexico%20First/MEXICO%20INDC%2003.30.2015.pdf>.

⁶⁵ See, for example, https://unfccc.int/sites/default/files/resource/LDC%20submission_March6.pdf.

approaches and social protections mechanisms, and show the most expanded coverage of risk management approaches.

2. Debt finance – bonds

56. Two types of bonds are observed in the submissions. First, the bonds that could provide credits for addressing slow onset changes. Climate, resilience and green bonds are typical examples of this category. These bonds finance projects for reducing GHG emissions, mitigating climate risk and enhancing the resilient capacity. Second, catastrophe bonds and catastrophe deferred drawdown options⁶⁶ provide immediate financial relief by enabling liquidation of the capital immediately after an extreme event has occurred. Not only serving as a risk transfer tool, such options can also be designed to enhance the risk management capacity of the target country by requiring it to put in place a disaster risk management programme.

3. Contingency finance

57. Contingency financing is designed to enable a swift cash flow, responding to urgent cash needs in the communities and the public sector in the aftermath of extreme events (see box 2). It is common practice in some countries to allocate funding from its national budget as a contingency fund for recovery from natural disasters. Providers for contingency financing exist across the levels. International relief providers such as WFP, or regional risk pooling schemes such as ARC, combine the multiple tools to respond to urgent finance needs, some of which enable finance to be channelled to the most affected individuals and communities. The current practice also suggests that some tools aim to provide direct financial support to the most vulnerable population and communities where loss or damage has occurred. For example, Kenya's Hunger Safety Net Programme enhances the coping capacity of vulnerable communities through unconditional cash transfer.

Box 2

Mobilizing monetary resources to enhance the flood response

For Thailand, 2011 was the wettest year for 61 years (1951–2011), in which the annual rainfall surged to 24 per cent above average.^a The damage from the floods affected nearly every sector of the country. More than 880 people were killed, and millions of residents lost their homes or were displaced. In total, 65 out of Thailand's 77 provinces were affected. Economic losses were estimated by the World Bank at USD 45.7 billion, particularly to the manufacturing, tourism, personal households, property and agriculture sectors.^b

Several financial mechanisms were mobilized by different sources, each with different focus and target beneficiaries. The Thai Government made available a range of financial measures and incentives, including a debt moratorium, low-interest loans and other loan arrangements, with the aim of providing affected sectors such as agriculture and farming with the capital to invest in recovery projects.

Emergency allowances

Two programmes for flood recovery financial assistance were provided by the Government to the affected households. The first was the result of a Cabinet resolution on 27 September 2011 for the central fund's budget allocation for emergency cases^c to compensate 5,000 Thai baht (USD 150) per family equally across all 36 flood-affected provinces to assist the households in coping with basic needs during the aftermath of the flood.^d The total amount paid nationwide was 1,670,195,000 Thai baht (around USD 51.4 million) covering 334,039 households.^e

The second programme was carried out when the flood situation had improved in December 2011, intended to provide housing renovation and small-scale rehabilitation. In many affected provinces, the Governor's Office instructed all districts to set up assessment committees in each local authority to assess loss and damage of households in their respective jurisdictions. The procedures and principles of assessment were based on the Ministry of Finance's Regulation on Fund Disbursement for Disaster Victims B.E. 2551. The regulation outlines different categories of damage and identifies

⁶⁶ See https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/lessons_financial_protection_gfdr-r-wbg.pdf.

maximum costs possible for each category. Categories include damage to house materials, kitchenware, lighting, textiles, equipment for income generation, and other livestock.

- ^a Thai Government Meteorological Department. 2012. *Natural Disasters 2011*. Available at https://www.tmd.go.th/programs%5Cuploads%5CyearlySummary%5CAnnual2011_up.pdf.
- ^b AON Benfield. 2011. *Thailand Floods Event Recap Report: Impact Forecasting – March 2012*. Bangkok: Empower Results. Available at http://thoughtleadership.aonbenfield.com/Documents/20120314_impact_forecasting_thailand_flood_event_recap.pdf.
- ^c Report on the central fund's budget for flood compensation rising in 10 years during the previous 6 Thai governments. Available at https://thaiublica.org/2011/10/flood-in-ten-years_six-governments-budgets/ (in Thai only).
- ^d The World Bank. 2012. *Thai Flood 2011: Rapid Assessment for Resilient Recovery and Reconstruction Planning*. Bangkok: The World Bank. Available at https://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_3858.pdf.
- ^e Yale-Tulane Planning and Response Network. 24 October 2011. *Yale/Tulane Esf-8 Planning and Response Program Special Report (Threat of Flooding - Bangkok)*. Available at http://www.esf-8-university.org/uploads/Yale-Tulane_Special_Report_-_Thailand_24_OCT_2011_-FINAL.pdf.

4. Insurance

58. Insurance mechanisms are currently being utilized in different regions across the world to support financial risk transfer as part of efforts for managing the risks of loss and damage comprehensively. Parameters referring to natural hazards and the scale of the disastrous incident are common triggers for the insurance programmes reported in the submissions which determine the disbursement of payout without bureaucratic or lengthy procedures. In addition to the role of transferring risk, complementary practices are emerging where some insurance schemes are also designed to provide social protection to vulnerable individuals. Micro insurance programmes, such as the Livelihood Protection Policy,⁶⁷ intervene with swift cash provision in the downward spiral of low-income individuals towards greater poverty resulting from exposure to climate impacts.

5. Interplay of instruments

59. Unlocking what collectively constitutes “addressing loss or damage” in chapter III.B and C above reveal that complementary approaches are needed to build long-term resilience while enabling countries to immediately respond to disasters after they occur. Finding smart ways of combining financial instruments is crucial for addressing the risks of loss and damage in a comprehensive and holistic manner. See box 3 for an example of using a combination of instruments to respond to the specific needs and circumstances of vulnerable households.

Box 3

R4 Rural Resilience Initiative

The R4 Rural Resilience Initiative delivers integrated risk management services to over 91,000 households in Ethiopia, Kenya, Malawi, Senegal, Zambia and Zimbabwe. It combines several risk management strategies, including risk reduction (improved resource management through asset creation); risk transfer (insurance); risk retention (savings and microcredit); and social protection (through livelihood diversification and building insurance into social safety nets). The insurance interventions help households to cope with shocks by providing timely support after an extreme event, and allow insured households to meet their basic needs, prevent negative coping mechanisms and smooth incomes. In 2018, for example, low rainfall led to nearly 30,000 farmers in Ethiopia, Kenya, Malawi, Senegal and Zambia receiving insurance payouts amounting to USD 1.5 million.

⁶⁷ See https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/mcii_submission_to_the_excom_of_the_wim_10-march-2016.pdf.

Sources: https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201904021153---20190313_UNFCCC_Technical_Paper_Contribution_Munich_Re_Foundation.pdf;
https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901152255---Submission%20by%20WFP%20to%20Excom_2019.pdf; and
https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf.

60. Figure 2 illustrates how financial instruments reported as partly addressing loss or damage, explicitly or implicitly, support multiple risk management approaches.⁶⁸ It provides a snapshot of ongoing efforts which utilizes different financial instruments undertaken by different providers of technical assistance, levels and sectors.

Figure 2
Snapshot of different financial instruments

Risk management approach	Assessing risk	Reducing risk	Transferring the financial risk	Retaining risk	Social protection
Grants	ASPIRE: ^a integrating climate information into social protection decision making. Climate Change Adaptation "top up" performance based grant: ^b effective governance for small-scale rural infrastructure and disaster preparedness BRACED: ^c enhancing the coping capacity of the most affected communities Hunger Safety Net Programme ^d in Kenya: providing unconditional cash transfer to household in the drought prone and over populated area				
Insurance			EPICA: ^e providing small credit to farmers based on the weather index LPC: ^f protecting financial institutions from loan default caused by climate shocks		LPP: ^g a weather-index insurance policy for vulnerable low-income individuals
Bond		Dutch Delta Works: ^h funding coastline protection project in the Netherlands against flooding and storms Fiji's Sovereign Green Bond: ⁱ financing resilience projects Cat DDO: ^j providing immediate contingent loan after a natural disaster MultiCat Program: ^k covering multiple perils in different regions			
Contingency financing		SECURE: ^l providing finance immediately for recovering from disaster FoodSECURE: ^m triggering anticipatory action based on climate forecasts to reinforce community resilience before shocks occur			

^a Adaptive Social Protection - Information for Enhanced Resilience project. See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901141205---RO-01-11%20EU%20submission_loss_damage_displacement.pdf.

^b See https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/undp_submission_-_loss_and_damage_march_2016.pdf.

^c Building Resilience and Adaptation to Climate Extremes and Disasters, Same as footnote a above.

^d See <https://unfccc.int/sites/default/files/resource/CAN%20Loss%20and%20Damage%20Submission%20022018.pdf>.

^e Ethiopia Project on Interlinking Insurance with Credit for Agriculture; see https://unfccc.int/files/adaptation/groups_ommittees/loss_and_damage_executive_committee/application/pdf/fao_submission_to_a_call_by_unfccc_excom.pdf.

^f Loan Portfolio Cover; See https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/mcii_submission_to_the_excom_of_the_wim_10-march-2016.pdf.

^g Livelihood Protection Policy. Same as footnote f above.

^h See https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901151715---MercyCorps_ResilienceFinancingBrief.pdf.

ⁱ Deferred drawdown option; see https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/lessons_financial_protection_gfdr-wbg.pdf.

^j Same as footnote i above.

⁶⁸ Figure 2 is based on the three sets of submissions mentioned in paragraph 37 above. Further desk review was conducted where needed.

^k Stand-by Emergency Credit for Urgent Recovery; see https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/submission_by_japan_on_financial_instruments.pdf; and https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/submission_by_the_world_food_programme_10march16.pdf.

61. Undertakings by the Executive Committee of the Warsaw International Mechanism and the SCF to date confirm that a diverse array of financial instruments is in use across all levels and sectors in order to address context- and country-specific risks of loss or damage as well as the multi-causality of the risks faced. Thus, it is important to examine instruments not in isolation but in complementarity and combinations across financial instruments and policies because no single financial instrument can be optimized to channel finance to cover the full spectrum of climate change impacts.

IV. Available sources of finance relevant to addressing loss and damage

A. Introduction and confines

62. The previous chapter contains detailed information, including brief descriptions, stated activity areas, modalities of access and other details of UNFCCC funds, multilateral funds and banks, bilateral finance contributions, domestic public expenditure and other sources of finance that may be relevant for addressing loss and damage.

63. This chapter first provides an overview by drawing heavily from the reporting of adaptation finance in the SCF 2018 biennial assessment and overview of climate finance flows, which provides an updated overview of financial flows in 2015 and 2016. The chapter is further informed by the discussions at the Suva expert dialogue and information provided to the Executive Committee of the Warsaw International Mechanism in a response to calls for input. Desktop research relating to funds outside the Financial Mechanism was undertaken to provide a glimpse of additional information on finance relevant for addressing loss or damage other than the UNFCCC funds and those reported in the biennial assessment report.

64. Annex I provides an overview of modalities of access of the UNFCCC funds and those outside the Convention, and annex II provides a short description relating to performance and reporting.

65. While a variety of sources of finance exist that may support activities which address the facets of loss and damage, chapter II above described the underlying challenges in identifying finance flows associated with, or elaborating finance available for, loss and damage. Current assessments, such as the SCF biennial assessment reports, account for resources tagged as adaptation- and mitigation-related spending, and do not yet specify a portion related to residual impacts either explicitly or implicitly. This necessitates a reliance on proxy indicators to be approximated.

66. In line with the acknowledgement by the COP in decision 2/CP.19 that “loss and damage includes, and in some cases involves more than, that which can be reduced by adaptation”, this chapter takes the view that adaptation finance will interact with (up to a certain, undefined point), and provide financing for, the actions requiring finance discussed in chapter III above. Using adaptation financing as a proxy facilitates an understanding of the overall flow of relevant financing that is currently used to address some dimensions of loss or damage.

67. Importantly, there exists a set of actions that may not be covered by adaptation finance. This is because the main focus of financial support for adaptation is adjustments in social, economic or natural systems to adapt to a changing environment. Supporting the aftermath of the loss of an asset (e.g. productive cropland which has been rendered unproductive) is often not a focus of such finance. No official estimates exist for the amount of financing needed to address loss and damage. Further, no mechanism exists for accounting for loss and damage finance flows. The estimated adaptation gap or cost of natural disasters

provide proxies.⁶⁹ In this regard, relevant aspects of DRR finance, development finance and humanitarian assistance, which may partially complement adaptation finance in addressing loss or damage, is provided in chapter IV.H below.

68. Financial figures referenced are as reported by the fund or mechanism in the biennial assessment or by the fund or mechanism itself in a publicly available document. In all cases an effort was made to identify financial flows or approved commitments for 2016 – the most recent year of the 2018 biennial assessment for comparability. In some cases where this was not possible, another year or range of years was utilized. Additionally, information was not always available from the 2018 biennial assessment or external sources in a disaggregated manner suitable for all reported flows to be comparable. Therefore, the references to financial figures in the chapter should be viewed as illustrative only to present the reader with a sense of available thematic areas, funds, financial mechanisms and instruments and a rough idea of their current application to the types and natures of actions requiring finance identified in chapter III above.

69. It should be noted that underlying information in this chapter and the annexes was drawn from different reporting channels and systems which may result in overlaps. Quantitative information is by nature only approximations of that which potentially contributed to actions addressing loss and damage and are for demonstration only as it is not possible to establish whether the funding associated with loss and damage is explicit or implicit in the underlying programmes, projects or activities.

70. Finally, this chapter does not intend to provide an exhaustive and complete assessment of all existing relevant finance, but aims to provide indicative illustrations of characteristics, limitations and constraints to inform the discussions of the review of the Warsaw International Mechanism and the potential undertaking of further analysis to advance the discourse on finance associated with addressing loss and damage.

B. Overview of financial flows

71. Adaptation finance accounts for roughly 25 per cent of overall climate finance flows (the total being comprised of mitigation, adaptation and REDD financing). The 2018 biennial assessment highlighted that finance tagged as adaptation reached an annual average of USD 14.79 billion for the period 2015–2016.⁷⁰ The Financial Mechanism provided an annual average of USD 475 million,⁷¹ the largest contribution was from bilateral sources amounting to USD 9.19 billion⁷² and MDBs contributed a further USD 5.88 billion in 2016.⁷³ Between the 2016 to the 2018 Biennial Assessment and Overview of Climate Finance Flows, adaptation finance is estimated to have grown by 45 per cent – a relatively equal proportion to mitigation.⁷⁴

72. The 2018 assessment, based on available information on recipients, reports that adaptation financing primarily flows to public sector institutions recipients: 90 per cent in 2015 and 97 per cent in 2016. A similar trend is likely to be observed in loss and damage financing. Similarly, grants continue to be a key instrument for the provision of adaptation finance. Grants accounted for 94 per cent of adaptation finance from the multilateral climate funds, and 62 per cent of the face value of bilateral adaptation finance reported to OECD.

⁶⁹ UNEP found that the adaptation finance gap could range from USD 140 billion to USD 300 billion by 2030 (UNEP, 2017). Similarly, total economic losses from natural catastrophes reached USD 339 billion in 2017 – the second highest after 2011 – of which only 3 per cent were geophysical (the type not associated with meteorological or climatological systems such as earthquakes or volcanoes (Munich Re, 2018)). Meanwhile, a similar sum (USD 373 billion) flows into fossil fuel subsidies, a direct contributor to potential loss or damage.

⁷⁰ 2018 biennial assessment.

⁷¹ Meanwhile commitments reached USD 746 million for the same period.

⁷² 2018 biennial assessment.

⁷³ Per biennial assessment methodology annual average for 2015–2016. The *Joint Report on Multilateral Development Banks' Climate Finance* reported USD 5.02 billion and USD 6.22 billion for 2015 and 2016, respectively.

⁷⁴ 2018 biennial assessment.

During the same period, 9 per cent of adaptation finance flowing through MDBs was grant based. This may not fully capture the value added of combining various types of financial instruments or technical assistance with capital flows, which can often lead to the use of more complex market-based mechanisms, greater innovation or more sustainable implementation.

C. UNFCCC funds

73. To address financing required for mitigation and adaptation, the COP entrusted the GEF (in 1996) and the GCF (in 2010) with the operation of the Financial Mechanism.⁷⁵ The AF was established under the Kyoto Protocol. The GEF manages the LDCF and SCCF. Together they have committed USD 746.7 million towards adaptation actions for the period 2015–2016.

1. The Adaptation Fund

74. Since 2010, the AF has committed USD 564 million to climate adaptation and resilience activities, including USD 32.34 million committed in 2016 (the most recent year reported by the 2018 biennial assessment). The fund recognizes that assisting the most vulnerable countries and communities is an increasing challenge and imperative for the international community, especially because climate adaptation requires significant resources beyond what is already available to achieve international development objectives.

75. The AF provides resources to countries through grants only. It is financed in part from a two per cent share of proceeds of certified emission reductions issued under clean development mechanism projects, and through voluntary contributions from governments and private donors.

76. The stated activity areas of the AF include: (1) water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems; (2) improving the monitoring of diseases and vectors affected by climate change, and related forecasting and EWSs, and in this context improving disease control and prevention; (3) supporting capacity-building, including institutional capacity, for preventive measures, planning, preparedness and management of disasters relating to climate change; (4) strengthening existing and, where needed, establishing national and regional centres and information networks for rapid response to extreme weather events, utilizing information technology as much as possible.

77. The AF also offers innovation grants, which fund, among others, DRR, enhancement of Cultural heritage, nature-based solutions and urban adaptation and offer innovative financing support. The Innovation Facility will provide at least 28 small grants of up to USD 250,000 to national implementing entities, starting with the first request for proposals launched in December 2018. A second request for proposals is expected in 2020.

78. **Relevance for financing actions to address loss and damage.** The AF places an emphasis on direct access, which helps to support the resourcing of projects that address acute challenges facing countries, including loss and damage. To ensure greater issuance of direct access financing the AF places a 50 per cent cap on funding to multilateral implementing entities. It also has the explicit mandate of resourcing adaptation interventions, and as such, compared with many other funds, has covered significant ground in addressing the residual impacts of climate change. In addressing residual impacts of extreme events, the AF supports, inter alia, building pre-emptive resilience (risk assessment and risk prevention) as was done, for example, under the Reducing Climate Vulnerability and Flood Risk in Coastal Urban and Semi-Urban Areas in Cities in Latin America project where climate monitoring, the strengthening of EWS and enhancement of response systems were core objectives.⁷⁶

79. Similarly, the AF helps to implement certain risk reduction and social protection measures such as adaptation and environmentally friendly adjustments to agricultural

⁷⁵ The financial mechanism also serves the Kyoto Protocol and the Paris Agreement.

⁷⁶ See <https://www.adaptation-fund.org/project/chile-ecuador-reducing-climate-vulnerability-flood-risk-coastal-urban-semi-urban-areas-cities-latin-america/>.

production, among other project activities, that will aid local producers in responding to floods and droughts in the Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin project. Non-economic losses such as loss of biodiversity, loss of sense of place when people must move, loss of territory and loss of societal and cultural identities may potentially fall outside the scope of its mandate.

2. Least Developed Countries Fund

80. The LDCF was established in 2001. It supports LDCs in their efforts to adapt to the effects of climate change. In most cases, they lack the technical, financial and institutional capacity to build resilience. The LDCF is designed to meet their needs and priority areas are taken from the country's NAPAs and NAPs, which are country-driven strategies that together identify the most urgent, medium and long-term needs for countries in adapting to climate change. All funded activities need to be mapped to these priorities.

81. The LDCF provides resources to countries through grants only. It is capitalized through contributions from public sources.

82. The stated activity areas of the LDCF include: (1) Food security and agriculture, including drought-resistant crops and farming techniques; (2) Water resources management, including rainwater harvesting and watershed management planning; (3) Disaster risk management, including integrated disaster risk management; (4) Community-based adaptation, including mangrove restoration and livelihood opportunities; (5) Natural resources management, including sustainable forestry practices; and (6) Health, including the implementation of climate-sensitive health programmes.

83. **Relevance for financing actions to address loss and damage.** Similar to the AF, the LDCF specifically aims to help countries to adapt to the impacts of climate change. It places a particular emphasis on country ownership and most vulnerable countries and requires all projects to be endorsed by the country or countries where it will be implemented. As it is a grants-only mechanism, which eases access to resources for heavily indebted countries, it does not offer the rapid, large-scale financing that certain extreme events causing loss or damage incur. As at April 2018, the GEF had provided USD 12.2 million in support of NAPA preparation and USD 13 million had been approved for support to the NAP process in the form of three global projects supporting multiple countries. Recognizing its mandate to support the NAP process in LDCs, the LDCF reported that 80 projects were already supporting countries in their efforts to integrate climate change adaptation into 210 national development policies, plans and frameworks, and that 82 projects will enable enhanced climate information services networks.

84. An example of supporting risk assessment efforts includes, for example, the Strengthening Climate Information and Early Warning Systems in Sao Tome and Principe for Climate Resilient Development and Adaptation to Climate Change project⁷⁷ – lays the foundation for comprehensive risk management approaches in the country.

85. Non-economic losses such as human mobility, loss of territory and loss of societal and cultural identities appear to fall outside the scope of its mandate. The LDCF, which provides incremental cost financing, was identified during the Suva expert dialogue as having the potential to support risk transfer through 'smart premium support'.⁷⁸ The LDCF faces challenges of predictability and capitalization. A joint independent evaluation further highlighted the need for streamlined project cycles and to make the fund easier to access.⁷⁹

3. Special Climate Change Fund

86. The SCCF was created in 2001 to address the specific needs of developing countries under the Convention. It covers the incremental costs of interventions to address climate

⁷⁷ See <https://www.thegef.org/project/strengthening-climate-information-and-early-warning-systems-sao-tome-and-principe-climate>.

⁷⁸ 2017. *Report of the Suva Expert Dialogue*. Available at <https://unfccc.int/sites/default/files/resource/010818%20REPORT%20OF%20THE%20SUVA%20EXPERT%20DIALOGUE.pdf>.

⁷⁹ MoD, 2009.

change relative to a development baseline.⁸⁰ Adaptation to climate change is the top priority of the SCCF, although it can also support technology transfer and its associated capacity-building activities. The SCCF is intended to catalyse and leverage additional finance from bilateral and multilateral sources. Programmes are to be country-driven, cost-effective and integrated into national sustainable development and poverty-reduction strategies; and to also take into account national communications or NAPAs and other relevant studies.

87. The SCCF provides resources to countries through grants. The June 2018 LDCF/SCCF Council meeting welcomed the strategy document on operational improvements which encouraged the use of blended finance instruments through the SCCF, including concessional loans and equity. The SCCF is capitalized through voluntary contributions from public sources.

88. The SCCF has two active windows;

(a) Adaptation – including water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, integrated coastal zone management, and climatic disaster risk management;

(b) Transfer of technologies – including environmentally sustainable technologies to reduce emissions, technology information, capacity-building for technology transfer and enabling environments.

89. **Relevance for financing actions to address loss and damage.** The SCCF is a grant-focused, dedicated climate fund. It has a broad mandate and knowledge to finance many of the actions that may be relevant to addressing loss and damage. In an innovative use of its financing the SCCF financed additional technical and regulatory assistance under the Southeast Europe and Caucasus Catastrophe Risk Insurance Facility⁸¹ to develop new weather risk insurance and reinsurance products and increase public awareness of weather risk in participating countries. As indicated by the June 2018 Board decision, the SCCF may begin to provide more innovative financial instruments such as concessional loans and equity. The additional options provided by the new financial instruments could allow the SCCF to support a broader continuum of efforts, including risk reduction and transformational approaches, by, for example, further exploring its expanded operational modalities and offering loans to activities supporting human mobility.

4. Green Climate Fund

90. The GCF is intended to address both mitigation and adaptation – aiming for a balance between the two over time – as well as facilitating private sector financing with climate-related end goals. It will address a broad array of actions related to addressing loss or damage. It sets aside an adaptation allocation for particularly vulnerable countries, including LDCs, SIDS and African States.

91. The GCF offers grants, loans, guarantees, equity and results-based payments. This range of instruments provides the opportunity for the GCF to potentially play a more substantial and innovative role in financing relevant actions that may address loss or damage. The GCF stated activity areas for adaptation include: (1) increased resilience of health, food and water systems; (2) infrastructure; (3) ecosystems; and (4) enhanced livelihoods of vulnerable people, communities and regions.

92. Countries are also supported through the readiness window in the development of country programmes and the formulation of NAPs and other adaptation planning, as well as in accreditation. The Private Sector Facility allows direct and indirect financing by the GCF for private sector activities.

93. **Relevance for financing actions to address loss and damage.** The GCF is well positioned to address the multi-faceted nature of actions addressing loss or damage owing to the range of financial instruments at its disposal as well as the presence of the Private Sector

⁸⁰ CFU, 2019.

⁸¹ See https://www.thegef.org/sites/default/files/project_documents/9-27-2011%20%2520ID4515%20%2520SEEC%20CRIF%20GEF%20PAD_9_15_11.pdf.

Facility, which can go beyond grants and support the development of risk transfer mechanisms not available under the other funds. Indeed, preliminary analysis has shown that the GCF has made headway in addressing economic and non-economic losses from slow onset and extreme events. For instance, it has begun to finance several projects that address risk assessment through projects that specifically seek to implement EWS to reduce loss of life, risk prevention through building resilience through coastal infrastructure or ecosystem-based adaptation and risk reduction through flood mapping and EWS.⁸²

94. It also has several projects linked to risk transfer, including the introduction of a weather index-based insurance programme.⁸³ While the GCF places an emphasis on ‘transformational’ and ‘paradigm shift’ approaches, it does not yet appear to cater well for financing of risk retention and social protection activities as characterized during the Suva expert dialogue. GCF projects relating to slow onset events have also been identified, including in relation to salinization,⁸⁴ sea level rise and ocean acidification, and explicitly identify activities that address extreme events such as cyclones.⁸⁵ One project also addresses the flooding risks of glacial melt although it does not appear to be within the scope of the project to directly address the economic or non-economic losses associated with glacial retreat.⁸⁶

D. Multilateral climate funds and multilateral development banks

95. Multilateral funds with relevance to supporting actions that may address loss and damage include the International Fund for Agricultural Development’s Adaptation for Smallholder Agriculture Programme, the Global Climate Change Alliance and PPCR under CIFs of the World Bank. Of the three, over 60 per cent was attributed to Adaptation for Smallholder Agriculture Programme and PPCR funds, which committed USD 301.75 million for the period 2015–2016.

96. The LDCF, SCCF, PPCR and FIP reported reaching over 20 million direct beneficiaries. Meanwhile, the target for the combined number of direct and indirect beneficiaries across the AF, LDCF, SCCF, PPCR, FIP and GCF is 290 million.⁸⁷ Of the adaptation finance provided by the multilateral climate funds, 94 per cent took the form of grants, with the remainder flowing as concessional loans.⁸⁸

1. The Pilot Programme for Climate Resilience

97. **CIFs.** The CIFs comprise two trust funds, the Clean Technology Fund and the Strategic Climate Fund, each of which is governed by a committee that oversees and decides on operations and activities. The Strategic Climate Fund further designates subcommittees to govern its three targeted programmes: FIP, PPCR and the Scaling Up Renewable Energy in Low Income Countries Program. Of these, PPCR is the window of most relevance to loss and damage. PPCR aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation by providing

⁸² Projects include Building the Climate Resilience of Food-insecure Smallholder Farmers through Integrated Management of Climate Risks (the R4 Rural Resilience Initiative); Responding to the Increasing Risk of Drought: Building Gender-responsive Resilience of the Most Vulnerable Communities; Senegal Integrated Urban Flood Management; Improving the Resilience of Vulnerable Coastal Communities to Climate Change Related Impacts in Viet Nam; Scaling-up Multi-Hazard Early Warning System and the Use of Climate Information in Georgia; Africa Hydromet Program - Strengthening Climate Resilience in Sub-Saharan Africa: Mali Country Project; Climate-Resilient Infrastructure Mainstreaming in Bangladesh; and Scaling Up of Modernized Climate Information and Early Warning Systems in Malawi.

⁸³ Low-Emission Climate Resilient Agriculture Risk Sharing Facility for MSMEs; Building the Climate Resilience of Food-insecure Smallholder Farmers through Integrated Management of Climate Risks (the R4 Rural Resilience Initiative).

⁸⁴ Low-Emission Climate Resilient Agriculture Risk Sharing Facility for MSMEs.

⁸⁵ Climate-Resilient Infrastructure Mainstreaming in Bangladesh.

⁸⁶ Scaling-up of Glacial Lake Outburst Flood (GLOF) Risk Reduction in Northern Pakistan.

⁸⁷ 2018 biennial assessment.

⁸⁸ 2018 biennial assessment.

incentives for scaled-up action and initiating transformational change, building upon NAPAs of LDCs. It focuses on five areas: agriculture, hydrometeorological services, climate information services, coastal zones and resilient infrastructure.

98. **Relevance for financing actions to address loss and damage.** As PPCR is designed to integrate climate resilience into development plans, PPCR-funded actions, as an overarching principle, are not intended to be free-standing and could be fused with MDB resources and/or other parallel co-financing measures, including government and/or private sector resources.

99. In this regard, PPCR has the ability to leverage partnerships with financial intermediaries, guarantees and equity-based operations to potentially scale up financing for actions that are relevant to addressing loss and damage. PPCR is designed to provide programmatic finance for climate-resilient national development plans with four main objectives: (1) pilot and demonstrate approaches for the integration of climate risk and resilience into development policies and planning; (2) strengthen capacities at the national level to integrate climate resilience into development planning; (3) scale up and leverage climate-resilient investment, building on other ongoing initiatives; and (4) enable learning-by-doing and sharing of lessons learned at the country, regional and global level.

2. Multilateral development banks

100. A group of six MDBs – AfDB, ADB, EBRD, EIB, IDB and WBG (including the International Finance Corporation) – have been reporting jointly since 2011 on their financing that supports climate change mitigation and adaptation projects. Adaptation financing accounted for just 23 per cent of total climate finance spending, or USD 5.9 billion. WBG is by far the largest provider.

101. Sixty-three per cent of total MDB adaptation finance was provided by the World Bank, which has one of the highest ratios of adaptation to mitigation finance. Only AfDB has allocated a similar ratio.⁸⁹ Just 9 per cent took the form of grants, with investment loans being used 74 per cent of the time.

102. It should be noted that MDBs draw much of their adaptation financing allocations from the incremental costs of climate-proofing investments – frequently mitigation investments. Furthermore, the World Bank announced in late 2017 that it will end funding to new upstream exploration and extraction of oil and gas by 2019,⁹⁰ which has a link, albeit indirect, to contributing to reduced loss and damage from climate change.

103. MDBs offer a wide range of instruments and support to financing actions that may explicitly or implicitly address loss and damage, including, but not limited to, investment loans, policy-based loans, grants, lines of credit, equities and technical support in establishing mechanisms like weather derivatives.⁹¹ According to the *2016 Joint Report On Multilateral Development Banks' Climate Finance*, 78 per cent of adaptation finance was in the form of investment loans, 14 per cent was policy-based lending, 5 per cent was grants, 1 per cent was lines of credit and 0.1 per cent was equity. Just 9 per cent took the form of grants, with investment loans being used 74 per cent of the time.

104. The MDB stated activity areas as per the *2016 Joint Report On Multilateral Development Banks' Climate Finance* (in order of financing support) include: (1) crop and food production; (2) water and wastewater systems; (3) energy, transport and other built environment and infrastructure; (4) coastal and riverine infrastructure; (5) agricultural and ecological resources; (6) institutional capacity support or technical assistance; (7) cross-cutting sectors; (8) financial services; (9) industry, extractive industries, manufacturing and trade; and (10) information and communications technology.

105. Finance is typically concessional and conditional. It would not be not practical to enumerate the channels for accessing MDB resources and modalities of access within the

⁸⁹ AfDB et al., 2018c

⁹⁰ WB, 2017.

⁹¹ World Bank, 2012.

limit of the volume of this paper, or list the specific windows of access under all bilateral flows that would be specific to addressing the residual impacts of climate change.

106. **Relevance for financing actions to address loss and damage.** The adaptation finance reported by the MDBs may not necessarily capture activities that may contribute significantly to resilience because, among others, it cannot always be tracked in quantitative terms (for example, adaptive operational procedures) or may not have associated costs (such as siting assets outside flood-prone areas).

107. While important, this limited view may exclude certain opportunities for MDBs to support the financing of actions that may be relevant to addressing loss or damage, including finding quasi market-based solutions to supporting transformational approaches and serving as intermediaries supporting the implementation of complex risk transfer instruments. The World Bank, for example, has already done so in several instances. Following several severe droughts, Malawi sought out ways to reduce the impact of drought on the country's industries and federal budget. It required access to funds quickly in the event of a severe and catastrophic drought and desired to reduce dependence on humanitarian appeals. The World Bank responded by helping the Government to transfer a portion of the risk of severe drought to the international financial market using weather derivatives.⁹² For Malawi and other countries, MDBs and DFIs can play the role of financial intermediary when governments and counterparties require additional capacity.

E. Bilateral sources of climate finance

108. **ODA** was a considerable source of financing for climate change adaptation for the period 2015–2016.⁹³ OECD introduced Climate Change Adaptation Finance tracking in 2010. It uses the Rio marker categories “principal” and “significant” to distinguish between flows which, respectively, directly and indirectly address climate change mitigation or adaptation. Bilateral flows are typically channelled through DFIs. Major DFI contributors of adaptation finance in the 2015–2016 period included the Overseas Private Investment Corporation, the Japan International Cooperation Agency, Finnfund, Norfund and the German development bank KfW, as well as aid agencies such as the United States Agency for International Development and the Department for International Development of the Government of the United Kingdom of Great Britain and Northern Ireland.

109. Bilateral climate finance flows and those channelled through MDBs have increased since the 2016 biennial assessment. Of the total bilateral climate finance provided in 2015–2016, 29 per cent was earmarked for adaptation projects and activities – a slight increase since 2013–2014. Twenty-four per cent of bilateral finance flows went towards LDCs (of which 50 per cent was earmarked for adaptation activities) and 2 per cent to SIDS (of which 45 per cent was earmarked for adaptation). Two thirds or more of the bilateral finance provided to SIDS and LDCs took the form of grants.

110. No less than 62 per cent of bilateral climate finance for adaptation took the form of grants, whereas just 25 per cent of mitigation finance was grant-based. The remainder was provided mainly via loans; very small amounts were provided through equity. All funds are sourced from public domestic budgets and frequently guided by respective national legislatures.

111. **Relevance for financing actions to address loss and damage.** Bilateral climate-specific finance grew by approximately 24 per cent in 2015 and 14 per cent in 2016. In particular, mitigation and adaptation finance provided through bilateral sources increased by similar proportions between 2014 and 2016 by 41 and 45 per cent, respectively. Furthermore, while MDB adaptation or climate resilience finance is more akin to climate-proofing, bilateral finance flows can occasionally involve more innovative financing initiatives such as InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance

⁹² World Bank, 2012.

⁹³ Data on bilateral support contained in the SCF biennial assessment reports are based on biennial reports to the secretariat.

Solutions, innovative collective investment vehicles or guarantees largely for agricultural resilience related projects.

112. Good progress is under way to perform quality checks on Rio marker data sets; however, further sharing of best practice would be useful in scaling up particularly effective resilience projects and distinguishing those that may address the residual impacts of climate change. Development of a system of tagging loss and damage relevant activities would benefit the assessment of financing that may be relevant to loss and damage among the vast landscape of bilateral finance flows. In addition, numerous submissions to the Suva expert dialogue, when speaking about North–South flows in a general sense, highlight the need for long-term, flexible, non-loan financing to unlock the cost-effectiveness of risk prevention, risk reduction and risk retention interventions. Finally, bilateral flows, being a broad category and with varying mandates and institutional arrangements, can be particularly innovative in nature since some of them can work beyond established fund mandates and indicators.

F. Domestic public climate and disaster expenditures

113. Domestic expenditures by national and subnational governments are a potentially growing source of climate finance (see box 4), particularly as in some cases NDCs are translated into specific investment plans and domestic efforts to monitor and track the domestic climate expenditures are stepped up.⁹⁴ Domestic climate expenditure estimates for 2015–2016 amounted to USD 67 billion.⁹⁵

Box 4

Improving early recovery from floods

In the aftermath of the historic floods of 2011, the Thai Government initiated a National Disaster Fund of USD 1.6 billion to support the provision of natural disaster risk coverage to households, small firms and industries. This model was designed by a working committee of members from the Office of Insurance Commission, the Thai General Insurance Association, the Thai Chamber of Commerce and the Federation of Thai Industries and was accepted by the Strategic Committee for Reconstruction and Future Development.

This fund was to be mutually provided by 67 general insurance companies and the Thai Government. The Natural Disaster Fund is expected to be in force for a minimum of three years, until reinsurance firms regain faith in Thailand. By 30 December 2011, the Thai Cabinet had approved the establishment of the fund and the OIC proposed a framework for operations in January 2012.

Furthermore, the Asia Pacific Disaster Response Fund under ADB provided a grant of USD 3 million, an amount proportional to the scale and magnitude of the emergency and early recovery requirements.

Sources: Ali, S. (2016). *The Thai Flood of 2011*. In *Governing Disasters: Engaging Local Populations in Humanitarian Relief* (pp. 136-151). Cambridge: Cambridge University Press.

ADB. (2011). *Thailand: Thailand Flooding 2011*. Retrieved May 11, 2019, from Asian Development Bank: <https://www.adb.org/projects/45374-001/main#project-overview>.

AON Benfield (2012). *2011 Thailand Floods Event Recap Report: Impact forecasting-March 2012*. Bangkok: Empower Results. Available at https://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_3858.pdf.

114. Box 5 below elaborates how tracking climate expenditures can yield multiple benefits, such as (1) the understanding of how, and how much, funding is being spent on national climate change responses; (2) identifying and prioritizing climate change related projects in the process of national budget allocation; and (3) building capacity of the budget authorities

⁹⁴ 2018 biennial assessment.

⁹⁵ 2018 biennial assessment. This includes Hebei Province in China which reported an expenditure of USD 6.1 billion in 2015.

and line ministries to ensure resources are used to progress towards a climate-resilient society.

115. However, comprehensive data on domestic climate expenditure are not readily available. Data are not collected regularly or with a consistent methodology over time within or across countries. Of the 30 countries that reported data on climate expenditures included in the 2018 biennial assessment, 19 countries provided such data in 2015 or 2016, with the 2015 data for 5 countries being included in the 2018 biennial assessment. Four countries reported expenditure of USD 0.335 billion in their biennial update reports, while seven countries published climate public expenditure and institutional reviews amounting to USD 16.5 billion. In two other countries, updated data are available amounting to USD 49 billion. In total, this brings domestic public climate finance estimates for the period 2015–2016 to USD 67 billion.⁹⁶ This far outweighs the sum thought to be provided to adaptation overall; thus it is not possible to obtain an accurate assessment of the component which might be relevant for the residual impacts of climate change.

Box 5

Tracking climate change expenditures in the national budget

The Republic of Moldova, together with UNDP, developed a methodology for tagging climate finance in the national public budget as part of the monitoring and evaluation system of the national adaptation planning process, funded by the Government of Austria.

Tracking climate expenditure also supports the development of the financial records required to help to build a climate-financing framework. In this regard, climate budget tagging enables integration and mainstreaming of climate change into national and subnational planning. The Republic of Moldova’s methodology articulates a three-step approach as part of a sectoral budget development process: (1) establish how the programmes, activities and projects address climate change; (2) determine which components have climate relevance; and (3) determine an appropriate climate budget indicator for each programme.

According to the Republic of Moldova’s methodology, a budget programme which meets any of the following three criteria can be marked as a climate change adaptation budget: (1) the objectives of the expenditure are explicitly directed at addressing, or designed to address, climate change (such as use of climate projections and scenarios in the programme design, and assessment of vulnerability, potential impacts and opportunities); (2) expenditures that directly address vulnerabilities and the impacts of climate change and climate variability as well as expenditures that increase adaptive capacity; and (3) the expenditures included in a priority list of the national adaptation strategy or NAP. The classification of a programme, action or project as an adaptation or mitigation related climate change budget indicator depends on the type of activity it addresses and the key function of that activity in response to climate change:

1. Policy development and governance;
2. Research and development;
3. Knowledge-sharing and capacity-building;
4. Climate response and service delivery.

Although the Republic of Moldova’s guidelines do not list “loss and damage” as a category for the climate budget taxonomy, the scope of the criteria for adaptation expenditures overlaps with the comprehensive risk management in the context of addressing loss and damage. Once a budget programme is classified, a quality assurance and review process kicks in to examine the objectives and presumed coverage of the tagged projects, as well as interdependencies between adaptation and mitigation. The results of the quality assurance and review inform the formulation of policy and budget recommendations to allow the Government to improve its actions toward resilience.

Line ministries and agencies have completed the classification and tagging exercise of their 2017 budgets. The next step for the Republic of Moldova is to carry out tagging procedures as mandatory across all sectors and build it into the regular budget planning and reporting cycle to capture the climate finance flow in the country.

⁹⁶ 2018 biennial assessment.

Source: Ministry of Environment, Republic of Moldova. 2016. *Methodological Guidelines on Climate Tagging of the National Public Budget*. Available at http://www.md.undp.org/content/moldova/en/home/library/climate_environment_energy/methodological-guidelines-on-climate-tagging-of-the-national-pub.html.

116. Domestic public expenditure mechanisms often focus on the following: social protection schemes, disaster risk budgeting, climate resilient infrastructure investments and national emergency responses, which are among the domestic provisions most relevant for addressing the residual impacts of climate change. This is also addressed under the Sendai Framework for Disaster Risk Reduction 2015–2030, which highlights under priority 3, “Investing in resilience”, that DRR considerations and measures should be integrated into financial and fiscal instruments. This also encourages national audit institutions to assess whether public expenditures and investments have been made in a risk-informed manner.

117. Four countries, Indonesia, Nepal, Pakistan and the Philippines, have transitioned from stand-alone Climate Public Expenditures and Institutional Review reports to automated budget tagging within the public financial management system, which has resulted in yearly data of consistent quality. However, most countries still rely on manual expenditure analysis and in some cases manual budget tagging.⁹⁷ There remains much scope for harmonization/standardization and common understanding of climate change related terms and methodologies. Definitions of “adaptation” and “mitigation” vary from country to country and the broader context, including the institutional context, may influence the way in which data are collected and stored.

118. Inherently, national budgets will be the “bank of last resort” in implementing the actions required to address loss and damage in developing countries that are vulnerable the adverse effects of climate change. Special attention should be paid to implementing the most cost-effective resilience building and response mechanisms.

G. Regional risk financing

Regional risk transfer facilities

119. ARC, CCRIF and PCRAFI, operating at the regional level, using index-based weather or ‘parametric’ insurance programmes which rely on accurate triggers such as precipitation and wind threshold to trigger insurance payouts. Their stated activity areas include:

- (a) Drought, flood and tropical cyclones (ARC);
- (b) Catastrophic hurricanes, earthquakes and excess rainfall events (CCRIF);
- (c) Tropical cyclones, earthquakes and tsunamis (PCRAFI).

Regional risk transfer facilities

	ARC ⁹⁸	CCRIF	PCRAFI
Amount of potential loss and damage relevant financing	Goal to provide USD 1.5 billion for drought, flood and tropical cyclone insurance coverage (currently USD 178 million) ⁹⁹	USD 138 million paid out over the lifetime of the facility	Coverage of USD 38.2 million ¹⁰⁰

⁹⁷ 2018 biennial assessment.

⁹⁸ Africa Risk Capacity Strategic Framework 2016–2020.

⁹⁹ ARC, 2017.

¹⁰⁰ World Bank. 2016. <http://www.worldbank.org/en/news/press-release/2016/11/02/new-insurance-facility-to-boost-natural-disaster-resilience-in-pacific-island-countries>.

	<i>ARC98</i>	<i>CCRIF</i>	<i>PCRAFI</i>
Payouts	USD >8 million for drought. ¹⁰¹ flood, and tropical cyclones	USD 25 million during 2015–2016	
Beneficiaries	150 million people in Africa indirectly insured against the impact of natural disasters		Target of 4.5 million beneficiaries by 2020
Number of countries	Up to 30 countries with coverage and 7 country members in 2016	6 member governments assisted during 2015–2016	5 policyholders (as at 2016)

120. A regional risk transfer facility uses an insurance mechanism to transfer risk. In the context of slow onset and extreme events several labels apply, including “weather index-based insurance” and “parametric insurance”. ARC has received bilateral financing during its resource mobilization rounds, including from the Governments of Canada, France and Sweden. CCRIF was developed under the technical leadership of the World Bank and with a grant from the Government of Japan. It was capitalized through contributions to an MDTF by the Caribbean Development Bank, the European Union, the World Bank and the Governments of Bermuda, Canada, France, Ireland and the United Kingdom, as well as through membership fees paid by participating governments. PCRAFI is financed through InsuResilience and received USD 6 million in capital in its first year of operation from the PCRAFI MDTF with the World Bank as Trustee.

121. **Relevance for financing actions to address loss and damage.** The Suva expert dialogue identified ARC, CCRIF and PCRAFI as funds having a role in addressing loss and damage. Governments can use these schemes to eliminate delays in disaster response due to a lack of predictable funding and to limit the reallocation of government resources from planned development activities in times of crisis. CCRIF, formed in 2007, is the first multi-country risk pool in the world and the first insurance instrument to successfully develop parametric policies backed by both traditional and capital markets.

122. Regional risk transfer facilities link early warning to early response for the quick mobilization of funds to implement pre-planned response activities. The pre-planning process ensures that potential payouts are used quickly and effectively and funds reach the most vulnerable populations in an efficient and timely manner.¹⁰² It allows participating governments to have financial resources available to them immediately at the onset of a disaster. Early disbursement of assistance derived from participation can potentially provide higher welfare benefits to countries and their vulnerable households than traditional aid channels, acting as a safety net and ensuring that the vulnerable communities’ basic level of resilience is not eroded to the point of loss or damage. There are potential high economic benefits from acting early and thus protecting a household’s economic growth potential. ARC, for example, cites that one dollar spent on early intervention saves nearly four and a half dollars spent after a crisis is allowed to evolve. Furthermore, timely payouts allow governments to respond in their own capacities before negative coping mechanisms such as reduced food consumption, livestock mortality and distressed productive asset sales are required.

123. A typical regional risk transfer facility implements a regionally driven risk transfer and risk sharing mechanism, covering risk modelling and early warning (risk assessment), contingency planning (risk prevention and risk reduction) and employing risk financing (risk transfer); supports comprehensive climate risk management approaches, including scaling up and replicating good practices and pilot initiatives; and addresses the residual impacts

¹⁰¹ ARC has recently expanded to cyclone and floods. but no information is currently available on the aggregate values associated with these risks.

¹⁰² Africa Risk Capacity Strategic Framework 2016–2020.

associated with the adverse effects of climate change, including both slow onset events and extreme weather events (see box 6 for an example).

124. It also supports vulnerable countries in building long-term, self-sufficient capacity. However, regional risk transfer facilities are not a panacea. The most common factor limiting uptake in the short term is the low density of weather stations in many countries, particularly in Africa. There is an urgent need to determine how contracts can be designed to meet the needs of very vulnerable groups, especially women. The variable nature of weather extremes is made even less certain by climate change; this exacerbates the problem of designing accurate insurance triggers.¹⁰³

Box 6

A case from the Pacific

Pacific island countries are highly exposed to climate-related extreme events, including tropical cyclones and tsunamis, and are particularly vulnerable to the adverse effects of such events. The Pacific Catastrophe Risk Insurance Pilot has been developed to increase the financial resilience against natural disasters in Pacific island countries by using insurance to access immediate cash in the aftermath of a disaster. This insurance pilot is part of a broader programme, the Pacific Disaster Risk Financing and Insurance Program, a joint initiative of the World Bank, the secretariat of the Pacific Community and ADB, with financial support from the Government of Japan, GFDRR and the European Union.

As at July 2015, the pilot had made two payouts following Cyclone Ian (Tonga, January 2014) and Cyclone Pam (Vanuatu, March 2015). Tonga received a payout of USD 1.3 million and Vanuatu received a payout of USD 1.9 million, both within 10 days of being affected by the cyclones.

Some of the lessons learned that were addressed by Parties include support at the highest level of government is a factor of success; strong coordination among participating countries is a necessity, as delays from one country will create delays for all the participating countries; and additional financial resources such as national reserves or contingent credit are required to complement the insurance programme.

Source: See, for example,

https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/lessons_financial_protection_gfdr-wbg.pdf.

125. In the longer term, a more uncertain challenge is the rising levels of risk as climate change gathers pace; this has the potential to render the mechanisms discussed above financially unviable. Initiatives such as the Pacific Islands Climate Change Insurance Facility that will build on the experience of PCRAFI but widen the coverage of the facility beyond insurance to deal with the effects of climate change, especially in terms of slow onset events, and including through social support and new financial instruments, will be useful in addressing future challenges brought about by the uncertainties with respect to loss and damage from climate change.

H. Thematic finance with potential to address loss and damage

126. A range of thematic labels is applied to funds potentially relevant for supporting the types of actions requiring finance for addressing loss and damage. In addition to climate finance, humanitarian assistance and DRR finance, development finance may be of relevance. Each of the thematic flows has a unique nature, including the type of financial instruments it utilizes to achieve stated objectives as well as distinct scale, timeline and triggers for dispersing the resources it employs. Used together, these funds and finance could provide a continuum of support for addressing residual impacts of climate change; each thematic label addressing some of the risks identified as linked to loss or damage as seen in figure 4.

¹⁰³ CCAFS, 2018 Research in Action Weather Based Insurance.

1. Humanitarian assistance

127. Humanitarian assistance has a long history and takes myriad forms. Humanitarian material and logistic assistance bring short-term relief to victims of natural or man-made calamities. The United Nations Office for the Coordination of Humanitarian Affairs aims to guide and coordinate the humanitarian community. United Nations entities whose primary roles are in delivering humanitarian aid include UNDP, the Office of the United Nations High Commissioner for Refugees, the United Nations Children's Fund and WFP, the last being the biggest humanitarian agency. Countless international and local NGOs and humanitarian organizations also provide assistance. Though humanitarian work is being increasingly anchored on risk-centred approaches, current practice demonstrates that the primary efforts are targeted to addressing loss and damage from sudden onset, extreme events, and answering emergency appeals. It is provided almost exclusively in the form of grants (as cash transfers or in-kind supplies). In 2016, OCHA Financial Tracking Service reported that USD 13.1 billion¹⁰⁴ was provided to countries and individuals in need.

2. Disaster risk reduction finance

128. International frameworks for DRR have been in place since 1989.¹⁰⁵ The Sendai Framework is an international agreement that lays out clear responsibilities, targets and priorities for reducing global disaster risk. The Sendai Framework's goal is to reduce existing disaster risk and prevent new risks from arising. It will remain in place until 2030. Priorities are to understand disaster risk, strengthen disaster risk governance, invest in DRR for resilience and enhance preparedness. All priority areas have linkages to the actions for addressing loss and damage that require financing as identified under the Suva expert dialogue. Like humanitarian assistance, it is usually provided in the form of grants or in-kind support. An aggregate accounting of global DRR finance is not available.

129. A vast majority of DRR actions with respect to the residual impacts of climate change centre around responding more swiftly when disaster strikes, building resilience ex ante and around the concept of 'build back better'. With respect to early action and employing risk reduction measures ex ante, a 2018 United States Agency for International Development study on Ethiopia, Kenya and Somalia found that early response to drought, combined with safety net transfers and resilience-building activities, could save USD 4.3 billion (or USD 287 million annual average) over a 15-year period. In a 5-country study over a 20-year period an annual average of USD 75 million was saved. Other studies found that the net cost of late response can be four to seven times higher than multiyear resilience-building. Finally, even in the instance where index-based responses or other mechanisms trigger false alarms, an early action response could be triggered two to six times, before the combined costs became equivalent to a single conventional late response.¹⁰⁶

Global Facility for Disaster Reduction and Recovery

130. GFDRR contributes to the implementation of the Sendai Framework by helping countries to integrate disaster risk management and climate change adaptation into development strategies and investment programmes and recover from disasters quickly and effectively. GFDRR is a grant-funding mechanism managed by the World Bank. Contributions from most members and other donors are pooled in the GFDRR MDTF. MDTF is used to finance projects around the world and may hold funds from any donor. Additional financing windows include cooperation between the African, Caribbean and Pacific Group of States and the European Union and Japan.

131. The GFDRR stated activity areas include: (1) promoting open access to risk information; (2) promoting resilient infrastructure; (3) scaling up the resilience of cities; (4) strengthening hydromet services and EWS; (5) deepening financial protection; (6) Building resilience at the community level; (7) deepening engagement in resilience to climate change; and (8) Enabling resilient recovery.

¹⁰⁴ OCHA, 2019 <https://interactive.unocha.org/publication/globalhumanitarianoverview/>.

¹⁰⁵ International Framework for Action (1989), Yokohama Strategy for a Safer World (1994), International Strategy for Disaster Reduction (1999), Hyogo Framework for Action 2005–2015.

¹⁰⁶ WFP, 2018b. Submission referencing Cabot Venton (2012) and Cabot Venton and Coulter (2013).

132. **Relevance for financing actions to address loss and damage.** GFDRR works with partners to identify the priority gaps and needs confronting the global resilience agenda following the adoption of the Sendai Framework, SDGs and the Paris Agreement. With WMO, the United Nations Office for Disaster Risk Reduction and the Government of France, GFDRR launched a new Climate Risk and Early Warning Systems initiative to finance weather stations, radar facilities and early warning to strengthen multi-hazard EWS in SIDS and LDCs. The initiative aims to raise USD 100 million by 2020 to help to ensure that targeted countries have at least moderate EWS and risk information capacities. These efforts represent a range of risk assessment, risk prevention, risk reduction and social protection actions. GFDRR programmes offer technical assistance, advisory and analytical work, capacity-building to support disaster risk management and adaptation, planning, a policy advisory capacity, DRR coordination, and capacity-building to respond financially in the wake of disasters and mitigate the fiscal and financial impacts of disaster.

133. On climate change, GFDRR aims to significantly scale up its support to catalysing the large-scale investments and policy changes required to achieve the national goals embedded in the Paris Agreement. Efforts will focus on addressing the critical knowledge gaps and building pipelines of effective resilience investments ahead of the first global stocktake in 2023, building on the momentum around the NDCs.

3. Development finance

134. Development finance is perhaps the broadest thematic label for financial aid given by governments or other agencies in support of economic, environmental, social or political development. It is distinguishable from humanitarian assistance by focusing on longer-term objectives such as the alleviation of poverty, and economic and political development. Having a broad scope, it also encompasses a large range of financial instruments, providing for the use of more complicated instruments beyond grants, such as concessional loans, guarantees, equity and more. See also chapter IV.E above on bilateral ODA for related information.

135. Development finance also encompasses the other types of thematic finance and estimates of other thematic finance are likely to fall under aggregate estimates for development finance. OECD reports that development finance from the 29 OECD DAC members¹⁰⁷ reached USD 142.6 billion in 2016.¹⁰⁸

4. Private sector

136. There is a noticeable absence of information related to private sector finance relevant to averting, minimizing and addressing aspects of loss and damage. The private sector is a significant financial actor in supporting low-emission technology development and adaptation-related measures. It does not report on its climate-related finance in a unified manner and there is no official estimate of flows stemming from the private sector. Estimated contributions may take the form of investments by companies in increasing energy efficiency, swapping energy sources or building supply chain resilience to climate change.¹⁰⁹

137. The worst flooding in Thailand in recent history¹¹⁰ forced many businesses to shut down more than 800 factories employing roughly 450,000 workers.¹¹¹ In addition, direct and indirect damage from the floods for small and medium-sized enterprises was estimated at 71.1 billion Thai baht a month, with 2.32 million jobs affected.¹¹² To restore investor

¹⁰⁷ It is important to note that ODA also encompasses, inter alia, climate finance and humanitarian finance.

¹⁰⁸ OECD DAC, 2017. Available at <https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/ODA-2016-detailed-summary.pdf>.

¹⁰⁹ As indicated in chapter II above, this paper does not elaborate on finance associated with GHG emission mitigation efforts.

¹¹⁰ See also box 2 for related information.

¹¹¹ Winn P. 2011. Tech world still shudders after Thai floods. *Global Post*. Available at <https://www.pri.org/stories/2011-12-16/tech-world-still-shudders-after-thai-floods>.

¹¹² Fernquest J. 2011. Thailand's SME hit by floods. *Bangkok Post*. Available at

confidence, the Government approved USD 10.5 billion in soft loans for flood-affected business operators based on the size of the segments. Moreover, the floods in Thailand have had a significant impact on the production of Japanese manufacturers operating in the country, many of which were forced to shut their factory operations. The Bank of Japan collaborated with the Thailand's central bank to implement a loan programme to help Japanese firms affected by flooding in the country through bonds as collateral to ensure that Thai baht loans are made available to firms.¹¹³ At the same time, the Japan Bank for International Cooperation offered USD 1,600 million (50,000 million Thai baht) for business loans for the Japanese companies or Thai companies that have business with Japan.

138. Private sector interaction with loss and damage, to date, more frequently takes the form of facilitating the provision of insurance, such as index-based weather or parametric insurance programmes. Private companies, in some cases, provide risk assessment to help countries to identify, price and transfer some financial risks associated with climate change impacts. Munich Re's NatCatSERVICE recorded around 1,900 loss events in 2016, costing the insurance industry USD 6 billion.¹¹⁴ However, 70 per cent of losses went uninsured¹¹⁵ in 2016; much of this would have been lost in developing countries where vulnerability is high and insurance coverage is relatively low. The United Nations, the World Bank and the insurance industry began collaborating in April 2016 to address this through the Insurance Development Forum,¹¹⁶ and parametric insurance cover is becoming available in many countries in the global South (see chapter IV.G for regional risk financing schemes).

5. Philanthropic funds

139. Philanthropic sources of finance, such as the Action of Churches Together Alliance, a coalition of over 150 churches and faith-based organizations that work together in over 125 countries, are potentially growing sources of finance to support climate action as the global community becomes more aware of the devastating impacts of climate change. The Action of Churches Together Alliance aims to work "towards increasing resilience of communities by reducing vulnerabilities and exposure through development and humanitarian initiatives to avoid loss and damages related to the adverse impacts of climate change...currently filling a gap where there is no loss and damage finance accessible for communities".¹¹⁷ The Action of Churches Together Alliance uses the humanitarian response mechanism and the Emergency Preparedness and Response Plan to appeal to its members in raising funds. It has also created the Rapid Response Fund – a global fund that national members can access in pursuit of a local agenda, which recognizes that local administrations are best placed to address the needs of their own localities in the event of an emergency.¹¹⁸

<https://www.bangkokpost.com/learning/learning-news/270091/thailand-smes-hit-by-floods>.

¹¹³ Soft loans (40,000 million Thai baht) was mobilized for small and medium-sized enterprises through a matching fund scheme between the Government Saving Bank and commercial banks.

¹¹⁴ See https://www.munichre.com/content/dam/assets/munichre/content-pieces/documents/pdf/TOPICS_GEO_2016-en4.pdf.

¹¹⁵ As footnote 131 above.

¹¹⁶ As footnote 131 above.

¹¹⁷ ACT, 2019 - <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901231013---ACT%20Alliance%20submission%20on%20sources%20of%20funding%20for%20Loss%20and%20Damage%20.pdf>.

¹¹⁸ In its submission to the secretariat, it indicates that this mechanism is widely used and over recent events such as the recent flooding in El Salvador and Honduras; Cyclone Gaja, which affected Tamil Nadu, India; the hailstorm that affected Armenia; the landslide in Uganda; Typhoon Mangkhut in the Philippines; the monsoon floods in Kerala, India; droughts in Eastern Africa; and displacement in Africa, Asia-Pacific and Latin America. See, for example, <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201901231013---ACT%20Alliance%20submission%20on%20sources%20of%20funding%20for%20Loss%20and%20Damage%20.pdf>.

V. Summary of observations

140. Building on the previous chapters, this chapter offers a summary of initial observations about sources of finance for addressing loss and damage. These include understanding the effectiveness and access of available finance in responding to emerging and evolving needs of developing countries for managing residual impacts of climate change. This chapter also contains possible areas for further analysis to contribute to further discussion on finance for addressing loss and damage.

141. Initial observations are discussed in the following categories: what is missing; using existing sources of finance effectively; and scaling up to increase the coverage of approaches.

A. Initial findings

1. Information gaps

142. The operating entities of the Financial Mechanism report annually to the COP, yet there are presently no standard methodologies or formats for specific reporting on investment in reducing, preventing or avoiding loss or damage from their interventions. Lack of tracking and reporting is partially owing to a lack of common understanding of the concept of addressing loss and damage necessary from a reporting perspective. The effectiveness of adaptation investment is currently not measured in a way conducive to assessing avoided losses or damage from such investment.

143. There is no single set of universally accepted outcome or impact metrics for adaptation (or for non-economic losses from climate change). The different funds such as the LDCF or the AF have converged over the years on output metrics, for example the number of vulnerability and risk assessments completed or the number of people trained in issue areas related to climate impacts and adaptation. They have not yet developed a common approach or agreed on metrics/indicators as to how to measure the success of their interventions; that is, whether vulnerability has been reduced or adaptive capacity and resilience increased.

144. Estimates of adaptation finance are more difficult to compile than those of mitigation finance, given the context-specific and incremental nature of adaptation finance (i.e. flows are frequently reported for the proportion of the project or investment that covers climate change adaptation activities).

145. Work is currently under way to develop measurement frameworks that appropriately capture adaptation financing by MDBs and the International Development Finance Club. Adaptation results reported by adaptation-focused multilateral climate funds illustrate the dominance of metrics on beneficiaries. Together the AF, GCF, LDCF, PPCR and SCCF expect to affect 290 million people directly and indirectly and have directly reached close to 20 million to date. Scaling up efforts to address loss and damage will require that funds and initiatives channelling finance begin to develop more robust mechanisms for identifying a baseline and the initiatives' contribution to reducing losses and damage against that baseline.

2. Access

146. The number of accredited entities at the national, regional and multilateral level across the UNFCCC funds has multiplied. There has been a notable increase in the number of regional and national implementing entities to the multilateral climate funds, despite large amounts remaining programmed through multilateral entities.

147. The majority of actions that may address a portion of loss and damage – as viewed through the lens of an adaptation finance proxy – are supported by grant-based finance. Evidence shows that grants have been supporting actions that enhance risk assessment, including capacity-building and financing the establishment of EWS, as well as risk prevention and/or risk reduction through the financing of resilience-building projects, social safety nets, and emergency and disaster response. However, currently available grant-based finance is comparatively low or not sufficient in scale or complexity to address the level of risk transfer and transformational approaches mentioned in chapter III above and identified through the Suva expert dialogue. Such approaches would benefit from a larger scale of

finance which could be mobilized by other types of (or combination of) instruments, such as concessional loans, equity contributions and guarantees, while also noting that transformational changes can start with incremental changes that lead to modifications in behaviour or systems.

148. Poorer populations, as well as women, youth and other marginalized communities, are particularly vulnerable to the adverse effects of climate change owing to the multiple risks that their livelihoods face. Their financial literacy and resource base are often minimal, while many financial instruments require preconditions, such as a certain level of liquidity or creditworthiness that the most vulnerable are not able to meet. Focusing on systems that support the poorest segments of society without burdening them further would help to avoid the economic or non-economic loss and damage that affects these segments of communities.

3. Capacity

149. Adequate capacities are required to generate and use climate and financial data and information effectively, establish regulatory and policy environments which remove market barriers, evaluate risk exposure and determine coverage needs, develop effective contingency and implementation plans, and identify bankable adaptation options which would lead to robust financing flows. This may include, for example, financing the development of operational data systems, training of staff or initial capitalization of contingency funds.

150. The management of climate finance or DRR resources requires effective governance and institutional capacities. The increase in regional and national accredited entities is most notable. At the same time, institutions need not only to be increasingly able to meet fiduciary, environmental and social safeguard requirements for accessing funds but also to develop the internal capacity to assess and manage complex risk pool and risk-sharing mechanisms. The AF and the GCF offer dedicated readiness windows, and mechanisms outside the UNFCCC, such as GFDRR, also invest in institutional capacity-building.

4. Finance continuum of action while navigating complexity

151. The timescales and types of instruments deployed will need to be complementary in addressing extreme as well as slow onset events that require different types of actions and financing. Through a risk layering analysis, risks can be categorized into different segments according to their potential frequency and severity. Preventive and risk reduction measures can contribute to strengthening adaptive and anticipatory capacity of communities and countries. Emerging practices suggest that the risk posed by more severe and less frequent events could be transferred through a range of risk transfer tools. One example is the R4 Rural Resilience Initiative (see box 3), in which basic support and risk assessment, reduction and risk transfer to manage climate impacts across the life cycle of recipients has helped many people to graduate out of poverty. A smart combination of such instruments would provide the means to foster sustainable development, and at the same time encourage risk reduction measures. Financial approaches to deal with specific categories of loss or damage, such as those associated with slow onset events, could be further pursued.

152. Funding sources under their various thematic labels are beginning to more frequently overlap and interact; for example, forecast-based finance and EWS work together to combat food insecurity and the negative livelihood impacts of excess rain and drought. Designed and implemented comprehensively, such tools can leverage the strengths and alleviate the weaknesses of tools used in isolation. Comprehensive design and implementation can create a continuum of support for addressing the multifaceted aspects of climate change. Further efforts could be made to better share lessons learned regarding comprehensive risk management and financial instrument development and deployment, as well as the scale at which financing is developed among budget and planning units not only of national governments but also at the subnational and local level.

153. Many of the financial instruments are not mutually exclusive in supporting different dimensions of the risk management approaches, but rather incorporate multiple functions in order to allow adaptability and flexibility in different circumstances. For example, the Pacific Catastrophe Risk Insurance Pilot mobilizes finance through premiums paid by member countries and donors. Countries can receive payout in the immediate aftermath of a large-

scale natural disaster until the domestic financial measures and international assistance become available. The fundraising scheme falls in as insurance while it also plays a similar role as contingency finance by filling a gap of urgent needs.

5. Upscaling, extent of financial coverage of additional approaches to address loss and damage

154. Territory, human mobility and cultural identity currently are not well covered. Given the infancy of tracking adaptation finance, linking mitigation finance to reduced residual impacts, and the lack of implicit or explicit coverage of residual impacts in risk management and results frameworks, it is not possible to assess the extent to which non-economic losses are addressed by current climate finance funds and channels. DRR channels, such as GFDRR, are beginning to track by impact and could provide a good example.

155. Innovative, flexible instruments that respond quickly, such as forecast-based financing and contingency funds, are a useful tool for scaling up immediately available finance when extreme events occur.

6. Means of scaling up – private sector

156. There is a noticeable absence of information related to private sector finance relevant to averting, minimizing and addressing not only adaptation but also aspects of loss and damage. Although evidence and acknowledgement is increasing that climate change presents financial risk to the global economy,¹¹⁹ the private sector does not report on its climate-related finance in a unified manner. Because achieving climate goals requires significantly shifting 'business as usual' economic activity away from emissions-intensive sectors and economies, making innovative use of a broad range of financial instruments to shift private sector practices to catalyse additional finance would contribute to a climate-resilient world. Finding more robust ways to work with the private sector in leveraging existing multilateral and bilateral funds to crowd in private sector funds would help to scale up resources.

157. The GEF has an explicit mandate to mobilize private investment and the GCF has the Private Sector Facility, whereas other funds envisage private sector engagement only as part of a broader objective. The involvement of all relevant stakeholders in the design of comprehensive climate risk management strategies and respective application of financial instruments is key for addressing the needs of the population at stake and thus ensuring the effectiveness of the instruments.

B. Potential areas of further research and analysis

158. Further analysis of the varying functions of financial instruments to support ongoing climate risk management projects, programmes and approaches would benefit the understanding of the complex landscape of finance that may contribute to addressing loss or damage. It would also help to identify the potential areas where further actions to facilitate the mobilization of finance are needed to strengthen comprehensive risk management for climate change impacts.

159. Further work in capturing the full extent to which domestic budgetary expenditures address these and other climate or DRR issues would help in estimating overall flows.

160. Innumerable funds exist to address a range of current disaster risks and specific elements of risk management which could be applied to climate impacts associated with climate change. These funds are often serviced by similar donors and may not extend to address the full spectrum (temporal, spatial, scale) of climate risks. These may include certain slow onset events that are infrequently addressed in project documents, such as glacial retreat.

¹¹⁹ The relevance of climate-related risks to today's financial decisions and the need for greater transparency have only become clearer and more urgent over the past two years. Nearly 800 public and private sector organizations have announced their support for the Task-Force on Climate-related Financial Disclosure and its work, including global financial firms responsible for assets in excess of USD 118 trillion. See <https://www.fsb-tcfid.org/wp-content/uploads/2019/06/2019-TCFD-Status-Report-FINAL-053119.pdf>.

Further analysis of funds and other sources to determine whether there are areas that need further addressing may be beneficial.

161. A significant body of work has been undertaken in recent years to make the ‘business case’ for adaptation. Risk management approaches, by nature, are intended to be a means of cost-sharing and therefore seek to be cost-effective. The Suva expert dialogue raised a number of questions around this issue, yet no comprehensive assessment of the cost-effectiveness of addressing certain residual impacts of climate change exists to date. Further information in this area would assist countries to optimize financing comprehensive risk management.

162. Currently no financial instrument that explicitly aims at supporting transformational approaches has been reported in the context of addressing loss and damage. Some other types of approaches mentioned in chapter III above which are already being supported financially can also bring transformational changes, but they may still be at a transitional stage and thus not in a position to induce drastic changes in the existing social-ecological system. In this regard, existing instruments have potential to channel finance to indirectly support transformational approaches. To this end, tracking the impacts of the finance associated with risk management for loss and damage would help in learning ways to accelerate social, economic and ecological transformation through available financial measures.

163. In closing, this technical paper has examined how loss and damage is conceptualized in order to provide a basis for examining relevant sources of financial support. The paper then reviewed existing sources of finance, including the Financial Mechanism, as well as a broader set of institutions which channel finance towards humanitarian assistance, development assistance and disaster risk management.

164. Presently, financial flows are not yet tagged in a way that readily enables tracking of finance that may be considered relevant for addressing loss and damage, and limited evidence exists of sources of finance and financial instruments that explicitly address loss and damage. The paper identified practices where finance currently tagged as adaptation, disaster risk finance and development and humanitarian assistance support relevant aspects of addressing loss and damage, in particular around contemporary concerns and actions expressed by countries seeking support.

165. Finally, the paper reflected on insights gained from the elaboration of finance for addressing loss and damage, which may serve to further related analysis in future.

Annex I

An overview of the access modalities of the UNFCCC funds and other sources of finance

I. Adaptation Fund

1. Eligible developing countries must be Parties to the Kyoto Protocol and must be particularly vulnerable to the adverse effects of climate change. This includes low-lying coastal and other small island countries, and countries with fragile mountainous ecosystems, arid and semi-arid areas and areas susceptible to floods, drought and desertification. Country allocation of resources also takes into account the level of vulnerability to climate change; level of urgency and risks arising from delay of action; ensuring access to the fund in a balanced and equitable manner; lessons learned in project and programme design and implementation to be captured; securing regional co-benefits to the extent possible, where applicable; potential for maximizing multisectoral or cross-sectoral benefits; adaptive capacity to the effects of climate change; and potential for learning lessons in project and programme design and implementation. One of the strategic priorities of the fund is to assist Parties vulnerable to the adverse effects of climate change in meeting the costs of adaptation. The AF places a USD 10 million funding cap per country.

2. Access to AF resources is secured through 28 national implementing entities, 6 regional implementing entities and 12 multilateral implementing entities. Since 2008, there has been a significant push towards direct access to international finance by national-level entities. Direct access helps to ensure that projects are designed and implemented by developing countries, amplifies stakeholder voices and helps to promote institutional capacity. The AF offers a readiness programme to support national institutions in complying with the fiduciary, environmental and social standards required to access finance, notably during the process of developing climate finance proposals.

II. Least Developed Countries Fund

3. All LDC Parties are eligible. Financing is provided on an ‘additional cost’ (of adaptation) basis, meaning that the LDCF aims to fund the full cost of adaptation in relationship with or on top of a typical development project or a stand-alone project where the full extent of the project is adaptation.¹

III. Special Climate Change Fund

4. All Parties not included in Annex I to the Convention are eligible to apply. Projects up to USD 1 million are referred to as medium-sized projects and over USD 1 million as full-sized projects. Medium-sized projects follow a further streamlined project cycle compared with full-sized projects. Similar to the LDCF, projects must focus on the additional costs imposed by climate change on the development baseline. Funding is provided only to address impacts of climate change in addition to basic development needs in vulnerable socioeconomic sectors. Projects do not need to generate global environmental benefits as long as additionality can be demonstrated.

5. Because the requests for SCCF exceed capitalization, pre-selection criteria have been agreed: (1) project or programme quality; (2) balanced distribution of funds in the eligible countries, with an emphasis on vulnerable Parties not included in Annex I to the Convention that have not previously had access; (3) equitable regional distribution; (4) balanced support

¹ See https://www.thegef.org/sites/default/files/council-meeting-documents/Clarification_on_Additional_Cost_8_May_4.pdf.

for all priority sectors; and (5) balanced distribution among GEF agencies based on comparative advantage.

6. A 2017 evaluation of the SCCF noted that while the project approaches are innovative, and potentially catalytic, follow-up is uncertain due to limited capitalization. The selection of projects has also been criticized for lack of transparency. Finally, the independent evaluation found that the fund would benefit from a knowledge exchange or learning mechanism.²

IV. Green Climate Fund

7. All developing country Parties are eligible to receive resources from the GCF. The GCF gives recipient countries access to funding through accredited national, subnational and regional and international implementing entities and intermediaries (including NGOs, government ministries and national development banks). The GCF has increased the number of accredited entities by 91 per cent since the 2016 biennial assessment, and regional and national institutions now make up more than half of its 78 accredited implementing entities as of May 2019.

8. Private sector entities can also be accredited as implementing entities (for example, international or regional banks and private funds are now accredited to the GCF). The GCF has a fit-for-purpose accreditation system where entities are accredited according to the size of the projects they manage (micro – up to USD 10 million, small – USD 10 to 50 million, medium – USD 50 to 250 million or large – above USD 250 million), their financial activity and the level of environmental and social risk of the projects and programmes that they intend to bring to the GCF.

9. Similar to the LDCF structure, national designated authorities are required to provide sign-off on projects and can object to private sector activities collaborating with the GCF and to ensure that private sector interests are aligned with national climate policies. The GCF also supports country readiness by financing capacity-building programmes aiding national institutions in complying with the fiduciary, environmental and social standards required to access finance during the process of developing climate finance proposals and the formulation of NAPs and other adaptation plans.³

10. The GCF also offers an enhanced direct access window and a Project Preparation Facility. In 2016, USD 200 million was committed to the enhanced direct access window for up to 10 pilots through the EDA accredited entities in developing countries to access finance and take decisions on resource programming, including the screening, assessment and selection of projects. The Project Preparation Facility provides countries with up to USD 1.5 million to support the preparation of projects and programme proposals covering feasibility studies, gender assessments, environmental and social assessments and other inputs to the project development process. The Project Preparation Facility is designed specifically to support direct access entities and projects in the micro and small category with a view to enhancing the balance and diversity of the GCF portfolio.

V. Pilot Programme for Climate Resilience

11. The PPCR embodies a model of equitable governance that fosters participation, partnership and transparent decision-making. Arrangements include equal representation of donor and recipient countries, consensus decision-making and active observer status for private sector, civil society and indigenous peoples representatives. Country access requires ODA eligibility (according to OECD DAC guidelines) and the existence of active MDB country programmes. Priority is given to highly vulnerable LDCs eligible for MDB concessional funds, including SIDS.⁴

² GEF, 2017.

³ GCF Readiness and Preparatory Support Programme, 2017.

⁴ CFU, 2018.

12. Currently, funding is split equally between loans and grants while the World Bank has emphasized that loans are optional; a recipient country can accept the grant component without the loan component. Heavily indebted poor countries will not be eligible for loans in order to avoid further debt burdens. Financing may be made available through budget support/development policy lending and coordinated investment programmes across key sectors, alongside national financing and/or existing international support mechanisms targeted at the public and/or private sector, which may, for example, include credit lines and partnerships with financial intermediaries, guarantees and equity-based operations.

VI. Bilateral sources of climate finance

13. In view of the diversity of mechanisms for channelling bilateral assistance it is not possible to list activities areas. There are no specific codes identified for loss and damage, and adaptation tracking itself consists only of the “significant” and “principal” Rio markers. However, the biennial assessment undertook a “sector frequency” comparison within the bilateral climate-related development finance database and identified that agriculture was identified in 13 per cent of the accounts, water and sanitation in 10 per cent, energy in 10 per cent, forestry in 4 per cent, disaster prevention and preparedness in 3 per cent, education in 6 per cent and general environmental protection in 26 per cent.⁵

VII. Regional risk facilities

14. Governments receive payouts based on pre-approved contingency plans providing detailed and timely information on how the payout will be deployed. Payouts are made from the insurance company to the government; governments use funds to implement their contingency plans, building on and reinforcing existing national institutional mechanisms and capacities. Many of the funds target a payout window; ARC, for example, indicates that funds should ideally be implemented within 120 days of an ARC payout, they should be used not for general investment activities but instead should aim to protect the livelihoods of beneficiaries who would be more negatively impacted if they need to wait to receive assistance.

⁵ 2018 biennial assessment.

Annex II

An overview of performance and reporting of the UNFCCC funds and other sources of finance

I. Adaptation Fund

1. The AF requires reporting for the following information areas: financial, procurement, risk, implementation progress, lessons learned, progress toward outputs and outcomes, and progress against the identified milestones. It also includes a results tracker that allows the AF to track specific indicators across its portfolio. These indicators include outcome- and output-level indicators from the AF Strategic Results Framework, as well as its five core impact indicators.

II. Least Developed Countries Fund

2. The LDCF and the SCCF, as GEF funds, have two performance rating indicators. Of interest is the second one, “development objective performance ratings based on the likelihood that a project will achieve its stated objectives by the end of implementation.” In addition, there are a number of impact indicators. For adaptation, indicators such as number of beneficiaries, number of hectares of land better managed to withstand the effects of climate change and number of people trained, as well as various other indicators, are measured and reported upon at the portfolio level.¹

3. While there are inherent difficulties in measuring the performance of adaptation, let alone the residual impacts leading to loss and damage, interventions financed by the LDCF and the SCCF provide an opportunity to build upon existing results frameworks and derive an understanding of what can be extended to further capture important progress under loss and damage actions.

III. Green Climate Fund

4. The GCF reports annually to the COP. The number of beneficiaries is the core indicator for adaptation in the current version of the performance management frameworks. The monitoring and accountability framework and the performance management frameworks of the GCF outline reporting requirements and set several performance indicators that measure results. Since 2014, the GCF Board and secretariat have worked to develop the results management framework with performance measurement matrices against which the impact, effectiveness and efficiency of its funding will be assessed.

5. At the 20th meeting of the GCF Board, which took place in July 2018, an update on the indicators in the performance management frameworks was published. Adaptation focus areas include increased resilience of health, food and water systems; infrastructure; ecosystems; and enhanced livelihoods of vulnerable people, communities and regions. The monitoring and accountability framework is also designed to ensure the compliance of accredited entities with their accreditation standards over time and the effective implementation of each of the GCF-funded projects and programmes of the accredited entities.

IV. Pilot Programme for Climate Resilience

6. The CIFs monitor PPCR which reports on both targets and achieved results. The results draw from two sources of information: country results reports submitted by the pilot countries and regional programmes; and project-level reports submitted by MDBs. The CIFs

¹ 2018 biennial assessment.

track progress on the integration of climate change into national and sectoral planning, strengthened government capacity and coordination mechanisms, the development and uptake of climate-responsive tools and strategies, and the number of people supported in coping with the effects of climate change.

7. Every year, state and non-state stakeholder groups in PPCR countries come together for a scoring workshop to assess progress on MDB-approved projects. Starting with the 2017 reporting cycle, project-level reporting templates were submitted by MDBs in order to leverage the data already being reported in their results frameworks and implementation status reports and to improve the aggregation of project- and output-level indicators at the PPCR fund level.

V. Climate resilience

8. The CIFs monitor PPCR which reports on both targets and achieved results. The results draw from two sources of information: country results reports submitted by the pilot countries and regional programmes; and project-level reports submitted by MDBs. The CIFs track progress on the integration of climate change into national and sectoral planning, strengthened government capacity and coordination mechanisms, the development and uptake of climate-responsive tools and strategies, and the number of people supported in coping with the effects of climate change.

9. Every year, state and non-state stakeholder groups in PPCR countries come together for a scoring workshop to assess progress on MDB-approved projects. Starting with the 2017 reporting cycle, project-level reporting templates were submitted by MDBs in order to leverage the data already being reported in their results frameworks and implementation status reports and to improve the aggregation of project- and output-level indicators at the PPCR fund level.

VI. Multilateral development banks

10. In July 2015, MDBs and the International Development Finance Club agreed on the Common Principles for Climate Change Adaptation Finance Tracking, including an outline of future work. The MDB methodology for tracking adaptation finance follows a context- and location-specific, conservative and granular approach. The methodology considers the subproject level or project-element level as appropriate. The joint MDB approach also seeks to identify the links between adaptation activities and a project's explicit intent to reduce vulnerability to climate change.
