

THE STATE OF PRE-ARRANGED FINANCING FOR DISASTERS



2023

Authors: Michèle Plichta and Lydia Poole



About the Centre for Disaster Protection

The Centre for Disaster Protection works to prevent disasters devastating lives, by helping people, countries, and organisations change how they plan and pay for disasters. The Centre is funded with UK aid through the UK government.

Acknowledgements

This report was researched, written and coordinated by Michèle Plichta and Lydia Poole, with substantive thematic contributions and analysis from Veronika Bertram, Jak Chowdhary, Conor Meenan, Shakira Mustapha and Aida Salili at the Centre for Disaster Protection, and Dean Breed (independent).

Niklas Rieger and Angus Urquhart, Development Initiatives, provided extensive expert guidance and advice to the development and refinement of the Centre's methodology.

External peer review of data and interpretation was provided by the World Bank Treasury, Global Shield Secretariat and Anticipation Hub. Internal peer review was provided by Daniel Clarke, Sophie Evans, Eleanor Hevey, Veronika Bertram, Conor Meenan and Shakira Mustapha.

The production process was coordinated by Anna Svensson. Design by Barney at thealpineroom.com

Suggested citation

Plichta, M. and Poole, L. (2023). *The state of pre-arranged financing for disasters 2023*. Centre for Disaster Protection, London.

Disclaimer

This publication reflects the views of the authors and not necessarily the views of the Centre for Disaster Protection. This material has been funded by UK aid from the UK Government, but the views expressed do not necessarily reflect the UK Government's official policies.

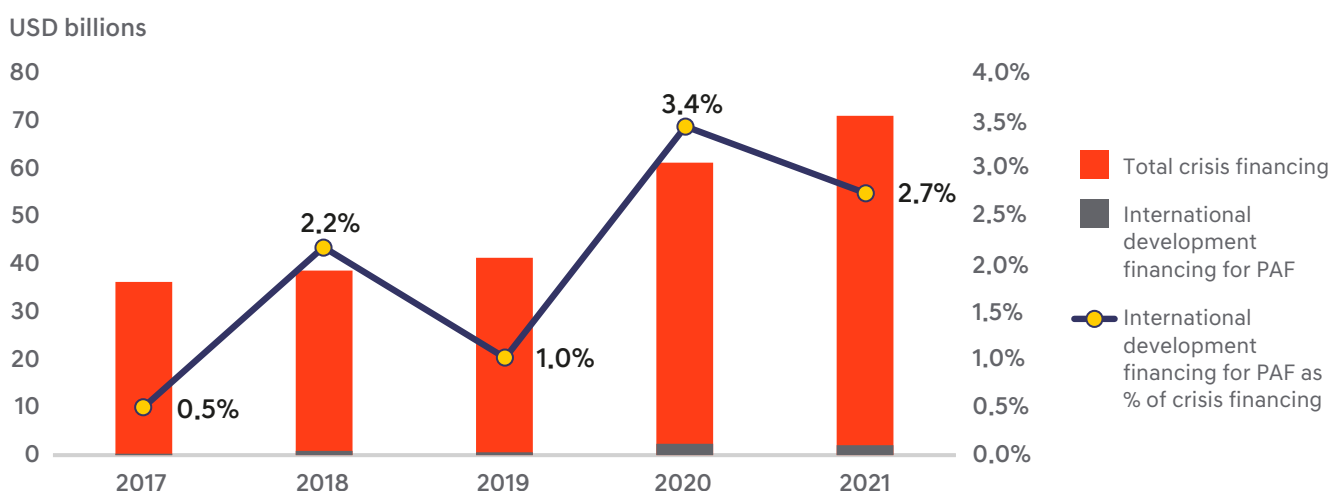
DAI provides the operational and administrative platform for the Centre's delivery and is a key implementing partner. DAI Global UK is registered in England: 01858644. 3rd Floor Block C, Westside, London Road, Apsley, Hemel Hempstead, HP3 9TD United Kingdom.

EXECUTIVE SUMMARY

Planning and preparing for shocks pays. Pre-arranged financing (PAF) for disasters¹ has the potential to significantly increase the predictability, speed and effectiveness of responses to shocks, reducing the human and financial costs. Currently, it is unclear how much pre-arranged finance is required to protect crisis-vulnerable people against risk, how much coverage there is in place, and how far we are from achieving adequate coverage, targeted to the right places, for those people most at risk. In the spirit of seeking to better measure and monitor what matters, the Centre for Disaster Protection (the Centre) has produced this data-led report. It collates the best available data to start to assess and monitor annually the state of pre-arranged financing supported with international development financing in low- and middle-income countries.

Pre-arranged financing is growing but remains a very small proportion of international crisis financing. International development financing – which includes official development assistance (ODA) and other, less concessional, aid-like flows – is a critical tool with which international actors can help to create incentives, increase affordability and bridge technical gaps that might prevent climate- and crisis-vulnerable countries from planning and preparing for shocks. Figure 1 shows how, based on the latest available data, international development financing for PAF has grown steadily over the five-year period 2017–2021, from just USD177.2 million in 2017 to USD1.9 billion in 2021. Overall, this represents a small proportion of financing for preventing, preparing for and responding to crises, accounting for just 2.7% of total crisis financing flows in 2021 and 2.2% of crisis financing across the five-year period 2017–2021.

FIGURE 1: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF AS A PROPORTION OF TOTAL CRISIS FINANCING 2017–2021



Source: Centre for Disaster Protection, based on OECD data (2023).

¹ In general terms, PAF includes financial arrangements established in advance for a variety of planned or expected purposes. In the Centre's definition, it concerns PAF for disasters and falls within the broader scope of DRF. The Centre's definition of PAF is: "Financing that has been approved in advance of a crisis and that is guaranteed to be released to a specific implementer when a specific pre-identified trigger condition is met. The trigger may be based on data or models related to impact, forecasts, or projections of need, or a declaration of emergency (or similar) by the specified respondent. The funding may be used for anticipatory action or in response to a crisis, either linked to a clear plan for a very specific purpose or general budget support."

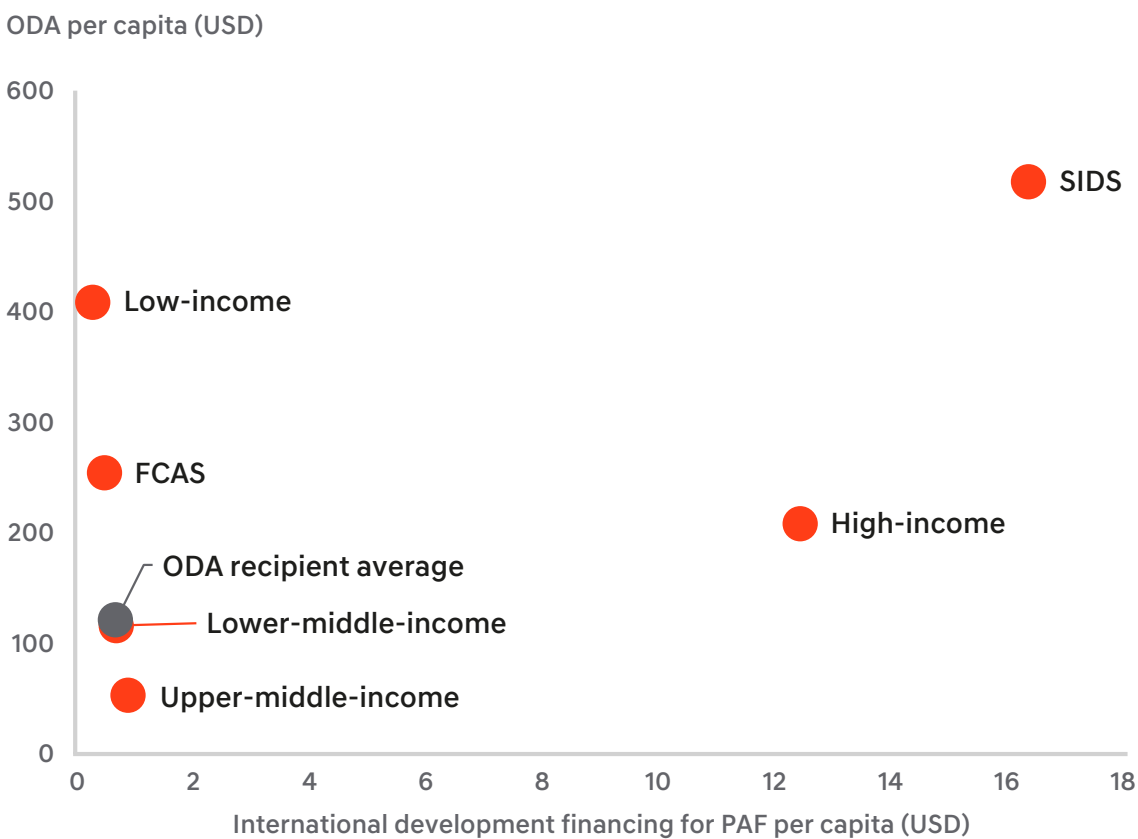
International development financing for PAF is not reaching the poorest and most vulnerable.

International development financing for PAF is concentrated in middle-income countries, with just 3.7% (USD200.8 million) reaching low-income countries between 2017 and 2021. Meanwhile, high-income and upper-middle-income countries have received at least 42.6% of this financing (USD2.3 billion) and lower-middle-income countries (LMICs) 38.2% (USD2.1 billion).² This is at odds with the distribution of poverty and with the spirit of the Pro-Poor Principles of the InsuResilience Global

Partnership (2019) that many international actors currently supporting pre-arranged financing have signed up to voluntarily.

Across 2017–2021, high-income countries received the highest levels of international development financing for PAF per capita (USD12.4) and low-income countries the lowest (USD0.3). This contrasts with a much more pro-poor distribution of ODA overall, with levels of ODA per capita significantly higher for low-income countries (USD408.3) compared to LMICs (USD116.2) and upper-middle-income countries (UMICs) (USD53.5).

FIGURE 2: ODA AND INTERNATIONAL DEVELOPMENT FINANCING FOR PAF PER CAPITA BY COUNTRY CLASSIFICATION 2017–2021



Source: Centre for Disaster Protection, based on data from OECD (2022, 2023) and World Bank Group (2023a, 2023b).
 Notes: The per capita amount calculations are based on 2021 population figures. SIDS = small island developing states, FCAS = fragile and conflict-affected states.

² The remaining 11% of the total PAF volume is not allocated to specific countries so cannot be classified by income group.

The types of international development financing for PAF and instruments available do not meet the needs of the poorest and most vulnerable countries. More than half of international development financing support for PAF (56.4%, USD3.1 billion) between 2017 and 2021 did not qualify as ODA but fell within the scope of other official flows (OOF). Most of the OOF for pre-arranged financing were provided by multilateral development banks (MDBs) with funds flowing to UMICs and high-income countries, which do not qualify for the most concessional financing under MDB rules. The majority of the international development financing for PAF was provided in the form of loans rather than grant financing, making it unattractive and unaffordable for countries who are struggling with high levels of debt and facing many urgent demands on national budgets.

Levels of financial protection or coverage provided by international development-supported PAF instruments confirm a strong concentration in higher-income countries. Data on the levels of financial protection provided by international development financing-supported PAF mechanisms is collected by the Global Shield Secretariat members. This data indicates that the maximum financial protection provided by PAF instruments, as reported by their members, has grown during the last three years from USD7.4 billion in 2020, to USD8.8 billion in 2021, and then USD9.0 billion in 2022.³ Across the three-year reporting period, volumes of coverage have been concentrated in middle-income countries, which reported 82.1% of coverage between 2020 and 2022 (split 53.6% in upper-middle-income countries and 28.4% in lower-middle-income countries). Notably, volumes and the total share of coverage has grown in UMICs and fallen in LMICs across this three-year period. Coverage in low-income countries has remained relatively static, at just 1.0% of total reported coverage across the 2020–22 period.

There are signs of adaptations in instruments to increase their accessibility for low- and lower-middle-income countries, but uptake remains low. The international development finance-supported instruments currently providing the highest levels of financial protection – contingent credit, regional risk pools and catastrophe bonds – were all originally developed to meet the needs of countries in Latin America and the Caribbean, a region comprised of predominantly high-income and upper-middle-income countries, in the mid-late 2000s. Some notable efforts have been made to adapt the instruments on offer, including creating a regional risk pool for Africa, the African Risk Capacity. The World Bank has also extended its contingent credit offer to low-income countries and offered more attractive terms. However, uptake of these instruments remains low.

Affordability acts as a disincentive to pre-arrange financing, particularly for low-income countries facing high levels of debt. Debt sustainability is a growing concern for many low- and middle-income countries, limiting their ability to respond to shocks. Since 2010, government debt ratios have been on an upward trend. While debt ratios started to decline since 2020, they remain high and are expected to remain elevated for least-developed countries (LDCs) and LMICs in the face of weak growth rates, high borrowing costs, and large financing needs. About 60% of low-income countries that use the International Monetary Fund-World Bank Debt Sustainability Framework for Low-Income Countries (IMF 2023) are assessed at high risk of debt distress or in debt distress – twice the number in 2015. Fiscal consolidation pressures to reduce debt vulnerability are likely to hamper the use of pre-arranged financing to manage climate risks in both low- and middle-income countries. Combined with higher reinsurance costs in current hardened market conditions driving up the costs of insurance, PAF is likely to be increasingly challenging for governments to prioritise.

³ It should be noted that coverage levels underestimate total volumes of coverage as not all reporting members have provided coverage values.

Premium support and other forms of grant financing to support uptake of pre-arranged financing are growing, but they remain small in volume and are short-term. The provision of premium subsidies for insurance products could help to reduce constraints to uptake. However, premium support is currently typically provided with the expectation that countries will eventually take these payments onto their own balance sheets. This expectation is becoming increasingly untenable. Against this backdrop, governments face increasingly difficult prioritisation decisions, which are likely to adversely impact demand for PAF directly financed by governments.

Anticipatory action is a programmatic approach that originated within and is currently delivered by humanitarian organisations. Currently, anticipatory action is largely grant funded. Funding for anticipatory action is growing, however, it represented just 0.2% (USD78 million) of humanitarian funding reported to the OECD DAC in 2021. Unlike most PAF, anticipatory action is strongly concentrated in the poorest and most vulnerable places. Notably, the majority of funding available for anticipatory action is concentrated in fragile and conflict-affected settings (78.6%) (based on data from Anticipation Hub). Anticipatory action, therefore, has the potential to extend the benefits of pre-arranged financing to populations in some of the most difficult environments, where governments may not have the capacity or ability to respond.

Pre-arranged financing has entered a unique moment of possibility which must be used to advocate for far greater use of PAF that delivers for climate- and crisis-vulnerable people. Pre-arranged financing for disaster response emerged as a relatively recent technical field within international development cooperation, with growing but modest levels of interest, support and

demand from partner countries. At the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) 27 meeting in November 2022, with the formal launch of the G7- and V20- backed Global Shield against Climate Risks, as well as the landmark agreement among the Parties to establish a fund to respond to Loss and Damage, PAF has been elevated to a key focus of international climate policy. This increased attention is much needed to help drive an expansion of financial protection; however, supporters and providers of pre-arranged financing must navigate these new political landscapes with care. They must also confront the many areas in which PAF is falling short of meeting the needs of vulnerable countries and people, in a warming climate where exposure to risk is growing, and where the affordability of financial protection is under pressure.

Monitoring international development financing investments in PAF provides a key tool to drive change towards better outcomes for climate- and crisis-vulnerable people. The primary purpose of this report is to provide a trusted baseline and trend-monitoring tool to enable more evidence-based reflection and discussion on trends, levels and patterns of investment in PAF. This will enable readers to assess and monitor whether international investments are targeting the right tools and instruments, and reaching the places where they are needed most. This inaugural annual report seeks to help close critical evidence gaps that support the scale-up of effective pre-arranged financing that meets the needs of those most vulnerable to shocks. The Centre is committed to working closely with partners to advocate for and improve data quality and coverage over time.

CONTENTS

Executive summary	03
Table of Figures	08
Data sources	10
List of acronyms	10
Introduction	12
1 Defining and measuring pre-arranged financing	13
1.1 What is pre-arranged financing and how is it measured?	13
1.2 Challenges in quantifying the ‘crisis protection gap’	16
2 International development financing for pre-arranged financing	20
2.1 Key trends	20
2.2 Improving data reporting: Near real-time tracking	33
3 Financial protection provided by pre-arranged financing	36
4 Developments in the pre-arranged financing toolkit	42
4.1 Catastrophe bonds	42
4.2 World Bank Catastrophe Deferred Drawdown Options	48
4.3 Regional risk pools	53
4.4 Anticipatory action	56
5 Situating pre-arranged financing in the wider global context	61
5.1 Pre-arranged financing and a warming climate	61
5.2 Pre-arranged financing and high public debt burdens and risks	62
5.3 Pre-arranged financing as a response to climate-induced losses and damages	64
6 Conclusion	67
References	69
Annex 1: Glossary	75
Annex 2: Data sources	76
Annex 3: Methodological notes	77

TABLE OF FIGURES

Figure 1.1: Categories of PAF financing addressed in this report	15
Figure 2.1: Situating international development financing for PAF within aid and aid-like flows in 2021	22
Figure 2.2: International development financing for PAF as a proportion of total crisis financing 2017-2021	23
Figure 2.3: International development financing for PAF by major donor groupings 2017-2021	24
Figure 2.4: International development financing for PAF provided by the multilateral development banks 2017-2021	25
Figure 2.5: International development financing for PAF excluding contingent credit payouts 2017-2021	26
Figure 2.6: International development financing for PAF by funding type 2017-2021	27
Figure 2.7: International development financing for PAF by income group 2017-2021	28
Figure 2.8: International development financing for PAF disbursements by region 2017-2021	29
Figure 2.9: ODA and international development financing for PAF per capita by country classification 2017-2021	30
Figure 2.10: International development financing for PAF per capita for different risk classifications by INFORM and WRI 2017-2021	31
Figure 2.11: Amounts per type of international development financing for PAF 2017-2021	32
Figure 2.12: International development financing for PAF reported to IATI and to the CRS for 2021	34
Figure 3.1: Pre-arranged financing coverage volumes per income group 2020-22	37
Figure 3.2: Pre-arranged financing coverage volumes by world region 2020-22	38
Figure 3.3: Proportion of PAF coverage for small island developing states and fragile and conflict-affected states 2020-22	39
Figure 3.4: Pre-arranged financing coverage by instrument type 2020-22	40
Figure 3.5: Proportion of pre-arranged financing coverage by income group, for different instrument types 2020-22	41

Figure 4.1: Timeline of notable sovereign catastrophe bonds issued since 2006	43
Figure 4.2: Premium costs, modelled payouts and observed payouts for catastrophe bond policies issued under the IBRD Capital-at-Risk Notes programme since 2017	46
Figure 4.3: Key metrics for 18 catastrophe bond policies issued under the IBRD Capital-at-Risk Notes programme since 2017	47
Figure 4.4: Number of World Bank Cat DDO prior actions per theme	48
Figure 4.5: Total World Bank Cat DDO payouts by country 2008-2023	50
Figure 4.6: Total World Bank Cat DDO payouts by event type 2009-2023	51
Figure 4.7: Median World Bank Cat DDO payout amount per affected person by income group	52
Figure 4.8: Total World Bank Cat DDO amounts approved and paid out	53
Figure 4.9: Evolution of the regional risk pools	54
Figure 4.10: Funding for anticipatory action as a proportion of total humanitarian financing 2019-2021	57
Figure 4.11: Anticipatory action funding coverage and disbursements as a share of total humanitarian funding requirements and funds received in 2022	58
Figure 4.12: Funding available for anticipatory actions by income group in 2022	58
Figure 4.13: Funding available for anticipatory action by hazard type 2022	59
Figure 4.14: Funding available for anticipatory action by region in 2022	60
Figure 5.1: Surge in government debt ratios since 2010	63

DATA SOURCES

This research relies on a range of data and information sources. Where mentioned, the source data has been adapted for the purposes of this report's analyses. Readers should refer to the original sources of the publicly available data for the unmodified versions.

See [Annex 2](#) for a full overview of the data sources.

ACRONYMS

ADB	Asian Development Bank
ADC	Aggregated Deductible Cover (of the CCRIF SPC)
ADRiFi	Africa Disaster Risks Financing programme (of the AfDB)
AfDB	African Development Bank
ARC	African Risk Capacity
BMZ	Federal Ministry for Economic Cooperation and Development of the German Government
CAR	Capital-At-Risk program (of the World Bank)
Cat DDO	Catastrophe Deferred Drawdown Option
CCRIF SPC	Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company
CERF	Central Emergency Response Fund (of UNOCHA)
COP	Conference of the Parties (of the UNFCCC)
CRS	Creditor Reporting System (of the OECD DAC)
DAC	Development Assistance Committee (of the OECD)
DREF	Disaster Response Emergency Fund (of the IFRC)
DRF	Disaster Risk Financing
DRM	Disaster Risk Management
FAO	Food and Agriculture Organization (of the United Nations)
FCAS	Fragile and conflict-affected states
FONDEN	Mexico's Fund for Natural Disasters
G7	Group of Seven (informal intergovernmental group of seven nations)
GDP	Gross domestic product
GFFO	German Federal Foreign Office
GriF	Global Risk Financing Facility
IADB	Inter-American Development Bank
IATI	International Aid Transparency Initiative

IBRD	International Bank for Reconstruction and Development (of the World Bank Group)
IDA	International Development Association (of the World Bank Group)
IFRC	International Federation of Red Cross and Red Crescent Societies
IGP	InsuResilience Global Partnership
IPCC	Intergovernmental Panel on Climate Change
IMF	International Monetary Fund
LDC	Least-developed country
LMIC	Lower-middle-income country
MDB	Multilateral development bank
MVI	Multidimensional vulnerability index
ODA	Official development assistance
OECD	Organisation for Economic Cooperation and Development
OOF	Other official flows
PAF	Pre-arranged financing
PCRIC	Pacific Catastrophe Risk Insurance Company
PRGT	Poverty Reduction Growth Trust
SEADRIF	Southeast Asia Disaster Risk Insurance Facility
SFERA	Special Fund for Emergency and Rehabilitation Activities (of the UN FAO)
SIDS	Small island developing states
SPV	Special purpose vehicle
UMIC	Upper-middle-income country
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	The UN Refugee Agency
UNOCHA	UN Office for the Coordination of Humanitarian Affairs
V20	The Vulnerable Twenty Group of Ministers of Finance of the Climate Vulnerable Forum
WFP	World Food Programme
WRI	World Risk Index

INTRODUCTION

The Centre for Disaster Protection (hereafter ‘the Centre’) exists to address major challenges to effective disaster risk financing (DRF) and promote more impactful and equitable DRF at scale, that leaves no one behind. DRF has expanded rapidly as a technical discipline within international development, and is a locus of innovation with an expanding range of instruments and product offerings from the private sector and international development partners. Despite this gathering momentum, DRF remains a small and niche component of international crisis financing. Meanwhile, exposure to risk continues to grow at alarming rates.

Pre-arranged financing (PAF) is a particular category of financing within the wider set of actions and financing tools that make up DRF. Its unique characteristics include securing funding in advance of shocks that will be triggered or disbursed when pre-agreed conditions are met (see Section 1 for a full description and definition). PAF provides a guarantee that when these pre-agreed conditions are met, funding will arrive. It can provide incentives for governments and international organisations to plan and prepare so that assistance reaches those who need it most. It can also help governments, businesses and communities avoid having to make costly ad hoc responses when disasters strike.

Currently, it is unclear how much PAF is needed to protect vulnerable people against risk, nor how much coverage there is, and therefore how far this is from achieving adequate coverage, in the right places, for the people most at risk. In the spirit of measuring and monitoring what matters, the Centre has therefore produced this data-led report, which attempts to collate the best available data to start to assess and monitor annually the state of PAF in low- and middle-income countries.

The report’s primary purpose is to provide a trusted baseline and trend monitoring tool to enable more evidence-based reflection and discussion on trends, levels and patterns of international development financing support for PAF. This will enable readers to assess and monitor whether international development financing is targeting the right types of investment and reaching the places where it is needed most. The report attempts to marshal available data on PAF coverage and identifies critical gaps in reporting. It also situates this assessment of the state of PAF in low- and middle-income countries within the wider global risk, policy, political and economic context, as well as highlighting notable trends and innovations in instruments and approaches.

Sources of data and information on PAF are limited. The Centre has developed a unique methodology to identify financing for PAF within international aid statistics – notably the Organisation for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) data and International Aid Transparency Initiative (IATI) data. The report also relies on data collected from the members of partner organisations, notably the Global Shield Secretariat (formerly the InsuResilience Global Partnership (IGP) Secretariat) and Anticipation Hub, as well as data from a range of publicly available sources (listed in Annex 2).

The secondary purpose of the report is to advocate for and work with partner organisations to improve data quality and coverage over time. The report, and the datasets and methodologies it relies on, are all therefore a work in progress, and the Centre welcomes critical feedback and collaboration to refine and expand the scope of data and how it is presented. The report will be published annually, with the expectation that data will improve and analysis will be refined with each cycle.

1

DEFINING AND MEASURING PRE-ARRANGED FINANCING

1.1. WHAT IS PRE-ARRANGED FINANCING AND HOW IS IT MEASURED?

The Centre uses a particular definition of pre-arranged financing that may differ from others' uses of the term. In general terms, PAF includes financial arrangements established in advance for

a variety of planned or expected purposes. In the Centre's definition, it concerns pre-arranged financing for disasters and falls within the broader scope of DRF.

BOX 1.1: DEFINITIONS OF DISASTER RISK FINANCING AND PRE-ARRANGED FINANCING

Disaster risk financing covers the system of budgetary and financial mechanisms to credibly pay for a specific risk, arranged before a potential shock. This can include paying to prevent and reduce disaster risk, as well as preparing for and responding to disasters.

Pre-arranged financing is financing that has been approved in advance of a crisis, and that is guaranteed to be released to a specific implementer when a specific, pre-identified trigger condition is met.

The trigger may be based on data or models related to impact, forecasts or projections of need, or a declaration of emergency (or similar) by the specified respondent. The funding may be used for anticipatory action or in response to a crisis, either linked to a clear plan for a very specific purpose or general budget support.

In the Centre's definition, DRF is financing for all disaster risk management (DRM) activities; that is, for preventing and reducing disaster risk, and preparing for and responding to shocks. Across this range of DRM actions, DRF instruments include a range of budgetary and financial

mechanisms, which are agreed and established in advance of potential shocks.

PAF is a specific sub-set of DRF instruments and approaches that focus on ensuring funds are available to respond to shocks, and in some cases

undertake specific preparedness actions. The unique distinguishing properties of pre-arranged financing in the Centre's definition are that financing has not only been arranged in advance of a shock, but that funds will be released or triggered based on agreed conditions.

These agreed triggers may be either 'hard', that is, objectively verifiable data-based thresholds, or 'soft', including declarations of emergency. Soft triggers are at the discretion of the funding recipient, rather than the funding provider or a third party.

The focus of this report is PAF supported by international development financing. There are three funding 'moments' at which PAF can be measured: international development financing for PAF, the financial protection this creates, and funds which are triggered or disbursed in the event of a shock. There are major challenges with measuring each of these funding moments (see Figure 1.1).

International development financing for PAF includes funding which creates direct financial protection against risk, such as contingent credit, premiums paid to buy insurance or catastrophe bonds (cat bonds), contingent grants or budgetary funds. Sources of financing include the risk holder, typically governments, businesses and individuals, and, of particular relevance for this report, international development donors.

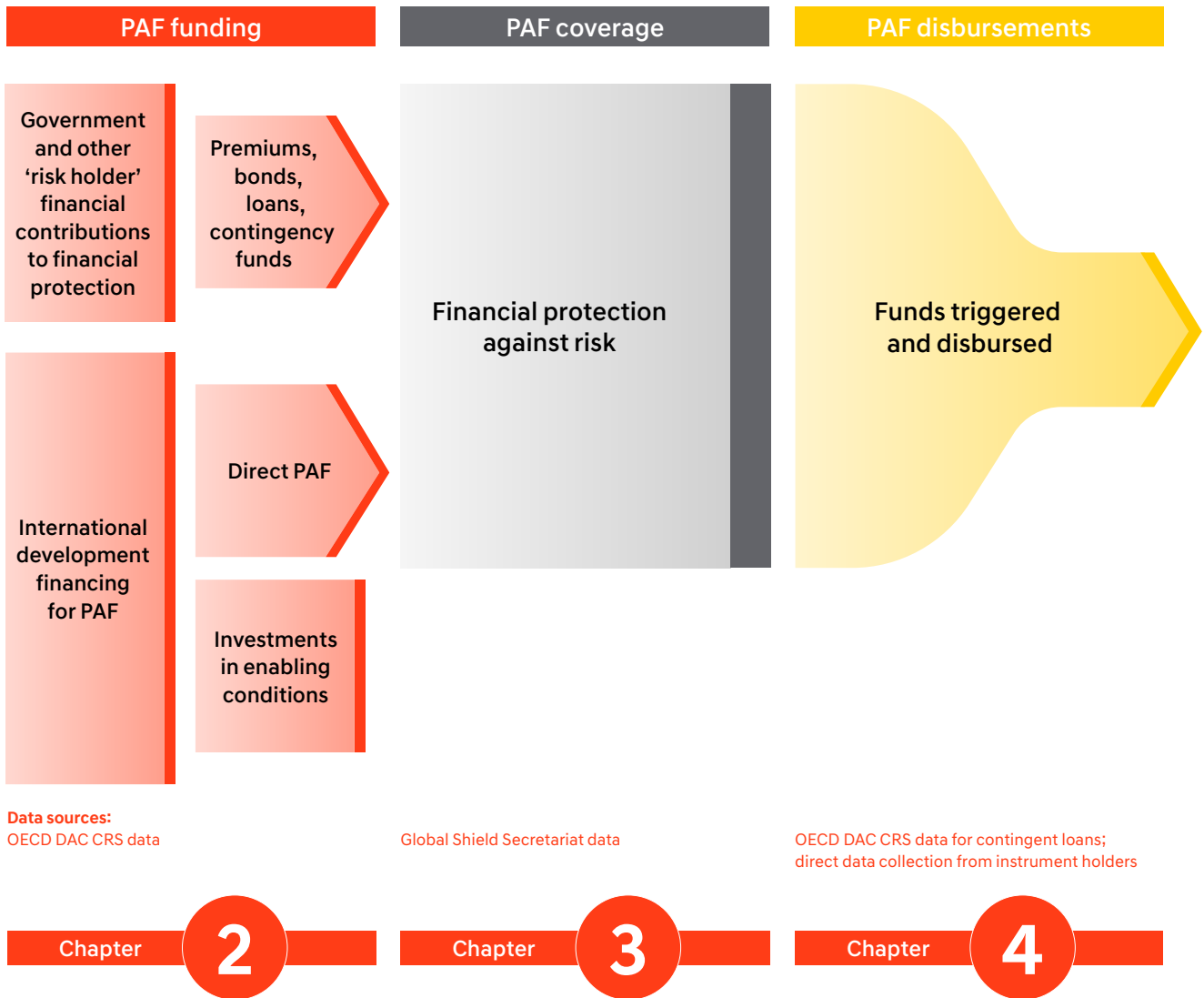
Currently, very little is known about how much risk holders are spending on pre-arranged financing, and there is only partial information on how much international development donors are spending, based on their reporting on development financing spending to the OECD

DAC CRS. Financial contributions from international development partners include funding that creates direct financial protection against risk, such as through providing contingent loans, and premium support contributions. However, it also covers investments in a broad scope of upstream activities that strengthen the enabling conditions for PAF. These include investments in early warning systems directly linked to pre-arranged financing instruments; capitalisation of and technical support to the establishment and running of PAF instruments; and research, advocacy, training and learning.

Direct contributions generate financial protection or coverage against risk. This is measured as the maximum amount of funds that are available should shocks of an agreed magnitude occur. This includes, for example, the total value of a contingent loan, the total coverage provided by an insurance policy, or the total potential payout from a cat bond. Currently, partial information is available on maximum coverage levels of aid-supported pre-arranged financing, based on voluntary reporting to the Global Shield Secretariat.

The final category of interest are the payouts made from pre-arranged financing instruments when agreed conditions occur and release payment of funds (Hillier and Plichta 2021). There is no systematic collection of data on payouts at present. Illustrative information can be collected from a variety of sources, including disbursements of contingent loans from development partners reported to the OECD DAC CRS, and data collected manually direct from instrument providers where they publish this information publicly.

FIGURE 1.1: CATEGORIES OF PAF FINANCING ADDRESSED IN THIS REPORT



1.2 CHALLENGES IN QUANTIFYING THE ‘CRISIS PROTECTION GAP’

Understanding what crises to expect and how much responding to them is likely to cost can help inform the design and use of pre-arranged financing mechanisms; inform resource allocation decisions; and hold decision-makers to account (Meenan et al. 2023). Calls to quantify the crisis protection gap are growing,⁴ and recently, the idea has gained both acceptance and prominence. Notably, the Global Shield Against Climate Risks has raised the need to measure and address the protection gap in their launch and subsequent publications, as well as in other materials from the V20 group⁵ and other stakeholders (BMZ 2022). Although there is now a degree of acceptance of the idea that it would be useful to quantify the protection gap, it remains technically challenging to measure crisis protection gap

metrics at a global scale and across all crisis risks.

The term protection gap originated in the (re)insurance sector, where it is used as a measure of the difference between insured losses and total losses. The original formulation therefore is concerned with meeting financial needs after a crisis event using PAF, but with a specific focus on insurance. The crisis protection gap formulation takes a broader view and includes not only losses that can be insured, but the gap between the entire scope of expected contingent liabilities of national or international responders (i.e. the costs they expect to incur in responding to crises), and the funds available to meet these costs through all pre-arranged financing mechanisms, not only insurance.⁶

BOX 1.2: DEFINITION OF CRISIS PROTECTION GAP

Crisis protection gap: The difference between total expected contingent liabilities of national or international responders (i.e. the costs they can expect to incur in responding to crises) and the expected funding available to meet these costs through pre-arranged financing mechanisms.

- 4 The Centre-convended Crisis Lookout Coalition proposed the need to create a ‘Crisis Lookout’ function including a request to G7 leaders in 2021 to ‘Predict crises better by creating a new “Crisis Lookout” function to increase engagement with risk information and support the prioritisation of crises globally, regionally, and nationally’ (Scott and Clarke 2021).
- 5 The Vulnerable Twenty (V20) Group of Ministers of Finance of the Climate Vulnerable Forum is a dedicated cooperation initiative of economies systemically vulnerable to climate change.
- 6 It should be noted that while it is generally recognised that there would be value in scaling up the use of PAF mechanisms, the optimal crisis protection gap may not always be zero. In other words, there may be some cases in which it is not desirable for all of the contingent liabilities of national and international responders to be met by PAF. Some role for ex-post financing mechanisms is also likely to be valuable.

BOX 1.3: DEFINITION OF CONTINGENT LIABILITIES

Contingent liabilities: The Centre defines contingent liabilities as obligations to pay costs associated with a possible, but uncertain, future event. Because there is no obligation to pay unless the event occurs, contingent liabilities might not be formally listed as a liability on an organisation's balance sheet. Contingent liabilities might be explicit or implicit:

- Explicit contingent liabilities are contractual commitments to make certain payments if a particular event occurs. The basis of these commitments can be contracts, laws, or clear policy statements.
- Implicit contingent liabilities are political or moral obligations to make payments, for example in the event of a crisis or a disaster. Governments do not recognise these liabilities until a particular event occurs. Implicit contingent liabilities are difficult to assess, let alone manage in a consistent manner, precisely because of their implicit nature.

Calculating the protection gap requires both an assessment of financing needs or costs, and an assessment of available coverage. It is considerably more difficult to predict and quantify crisis protection costs.⁷ The Centre has recently concluded an extensive research exercise, building on the tools and modelling approaches of the insurance and risk modelling community for predicting and managing crisis-related risks, to test the feasibility of generating a credible assessment of crisis protection costs of the world's most vulnerable people. The research concludes that while important gaps in generating information on costs of response exist, and challenges remain in producing forward-looking information on the likelihood of crisis events of different severities, it is feasible and indeed increasingly possible to generate an assessment of crisis protection costs (Meenan et al. 2023). In the meantime, however, the only information available to assess the current crisis protection gap is partial data on pre-arranged financing coverage.

Understanding whether pre-arranged financing is reaching the 'right' places, in the absence of an assessment of crisis financing needs, requires consideration of the allocation of funds against a range of characteristics. Analysis in this report therefore considers the coverage of pre-arranged financing and allocation of international development financing for PAF along a range of country characteristics. These include income group; analysis of funding and PAF coverage per person living below the poverty line; and according to whether countries are classified as small island developing states (SIDS), or fragile and conflict-affected states (FCAS).⁸ Both SIDS and FCAS warrant separate consideration for a variety of distinct reasons.

The magnitude of a crisis relative to the size of the country affected can impact the severity of any shock. Small countries may appear to have relatively small expected costs and numbers of people affected by shocks, but relative to the size

⁷ In addition, identifying who will take responsibility for which parts of crisis risk, in other words who is responsible for contingent liabilities, is extremely challenging and politically contentious (Poole, Clarke and Swithern 2020).

⁸ This is according to the OECD classifications of recipient countries, for donor reporting on 2021 funding flows (OECD 2022).

of the country's population or gross domestic product (GDP), respectively, these figures may indicate far more severe impacts when compared to other, larger countries (Meenan et al 2023). Small island developing states are recognised as

having a unique shared set of development challenges that are not captured by their income per capita status. In addition, many are also not eligible for the most concessional development financing (see Box 1.4).

BOX 1.4: DEVELOPMENT CHALLENGES FACING SMALL ISLAND DEVELOPING STATES

SIDS are disproportionately and increasingly impacted by climate change, including being exposed to frequent climate disasters. They share many economic characteristics that make them particularly vulnerable to the impacts of disasters. They often have limited economic diversification, including high dependence on tourism and remittances; suffer economic volatility due to fluctuations in private income flows and the prices of raw materials; and have high levels of debt stress. SIDS make up two-thirds of the countries that suffer the highest relative losses - between 1% and 9% of their GDP each year - from disasters (OECD 2023).

Most SIDS that are eligible for official development assistance (ODA) are currently upper-middle-income countries. ODA rules stipulate that when a country surpasses the high-income threshold for three consecutive years, it can graduate from the list of eligible countries, and concessional flows from donors can no longer be counted as ODA.⁹

In contrast, the UNFCCC and the Paris Agreement recognise that all SIDS are particularly vulnerable to the adverse effects of climate change and acknowledge the need for public and grant-based resources to these states (UNFCCC 2015).

While the major multilateral development banks like the World Bank and Asian Development Bank have created exceptions that allow SIDS to access concessional financing even if they exceed income thresholds, the evidence suggests that SIDS face significant problems in accessing affordable and high-quality finance after graduating from ODA eligibility due to the continued dominance of income-based access criteria and onerous requirements (Wilkinson et al. 2021).

The recent agreement by the United Nations General Assembly to develop a multidimensional vulnerability index (MVI) is perceived by SIDS as a step in the right direction, especially if it leads to donors applying the MVI as a complementary criterion to income per capita when granting concessional financing.

9 Since the beginning of the DAC (1961), the following SIDS have graduated from the DAC recipients list: Guadeloupe, Martinique, Réunion, and Saint Pierre and Miquelon (1992); Bahamas and Singapore (1996); Bermuda, Cayman Islands, Cyprus and Falkland Islands (Malvinas), (1997); Aruba, the British Virgin Islands, French Polynesia, Netherlands Antilles, New Caledonia and the Northern Marianas Islands (2000); Malta (2003); Turks and Caicos Islands (2008), Barbados, Mayotte, and Trinidad and Tobago (2011); Anguilla, and Saint Kitts and Nevis (2014); Seychelles (2018); Cook Islands (2020); and Antigua and Barbuda (2022). (OECD 2023)

Vulnerability to shocks is likely to be higher for people living in environments subject to violent conflict. Recent analysis of empirical evidence between 1989 and 2018, for example, found that countries in conflict experienced disaster-related annual mortality 34% higher, and deaths per million inhabitants 16% higher, compared to countries without conflict (Caso et al. 2023). The human impacts of violent conflict are an upward trajectory. The numbers of people forcibly displaced by persecution, conflict, violence, human rights violations and events seriously

disturbing public order, for example, increased sharply to a record 108.4 million people¹⁰ at the end of 2022 – a 21% increase on 2021 (UNHCR 2023). 76% of forcibly displaced people are seeking refuge in low- and middle-income countries (ibid.). The costs of response may also be markedly higher in conflict-affected settings (Meenan et al. 2023), and governments in fragile and conflict-affected settings may have limited capacity to respond, including in some cases not having access to areas controlled by non-state armed groups.

10 This figure includes refugees (including refugees who are not covered by UNHCR's mandate), asylum-seekers, internally displaced people and other people in need of international protection. Other people in need of international protection is defined by UNHCR as "People who are outside their country or territory of origin, typically because they have been forcibly displaced across international borders, who have not been reported under other categories (asylum-seekers, refugees, people in refugee-like situations) but who likely need international protection, including protection against forced return, as well as access to basic services on a temporary or longer-term basis." (UNHCR 2023)

2

INTERNATIONAL DEVELOPMENT FINANCING FOR PRE-ARRANGED FINANCING

2.1. KEY TRENDS

International development financing, including official development assistance (ODA) and other aid-like flows, referred to in aid statistics as other official flows (OOF), is a key tool by which international actors can promote and incentivise uptake and effectiveness of pre-arranged financing. It is also a means by which international actors can provide direct financial protection. However, PAF is not currently readily identified within international development financing statistics. The Centre, with expert advice from Development Initiatives,¹¹ has therefore developed a methodology to assess how

much ODA and other aid-like flows qualifies as pre-arranged financing.

To understand international development financing for PAF in the broader context of crisis financing, the Centre also developed a method to assess how much international development financing is directed towards activities to prevent, prepare for and respond to crises. Definitions and methodologies for identifying funding for pre-arranged financing and crisis financing are summarised in Box 2.1 and described in full in Annex 3.

¹¹ Development Initiatives specialises in generating data-driven evidence and analysis to inform policy and practice to end poverty, reduce inequality and increase resilience. <https://www.devinit.org/>

BOX 2.1: KEY TERMINOLOGY AND DEFINITIONS

The Centre’s methodology relies on the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) dataset, which captures transaction-level data on financing flows to developing countries from governments, multilateral organisations and some of the largest private philanthropic organisations.¹² This includes several types of financing flows, notably ODA and OOF. For the purposes of this report, this grouping of flows is referred to as ‘**international development financing**’.

ODA is often understood as ‘aid’. The official definition is:

“Resource flows to countries and territories on the DAC List of ODA Recipients (developing countries) and to multilateral agencies which are: (a) undertaken by the official sector; (b) with promotion of economic development and welfare as the main objective; (c) at concessional financial terms. In addition to financial flows, technical co-operation is included in aid. Grants, loans and credits for military purposes and transactions that have primarily commercial objectives are excluded. Transfer payments to private individuals (e.g. pensions, reparations or insurance payouts) are in general not counted.” (OECD n.d.)

OOF are aid-like flows from official donors to developing countries, which do not meet the strict definition of ODA, but which contribute at least in part to development. The official definition is:

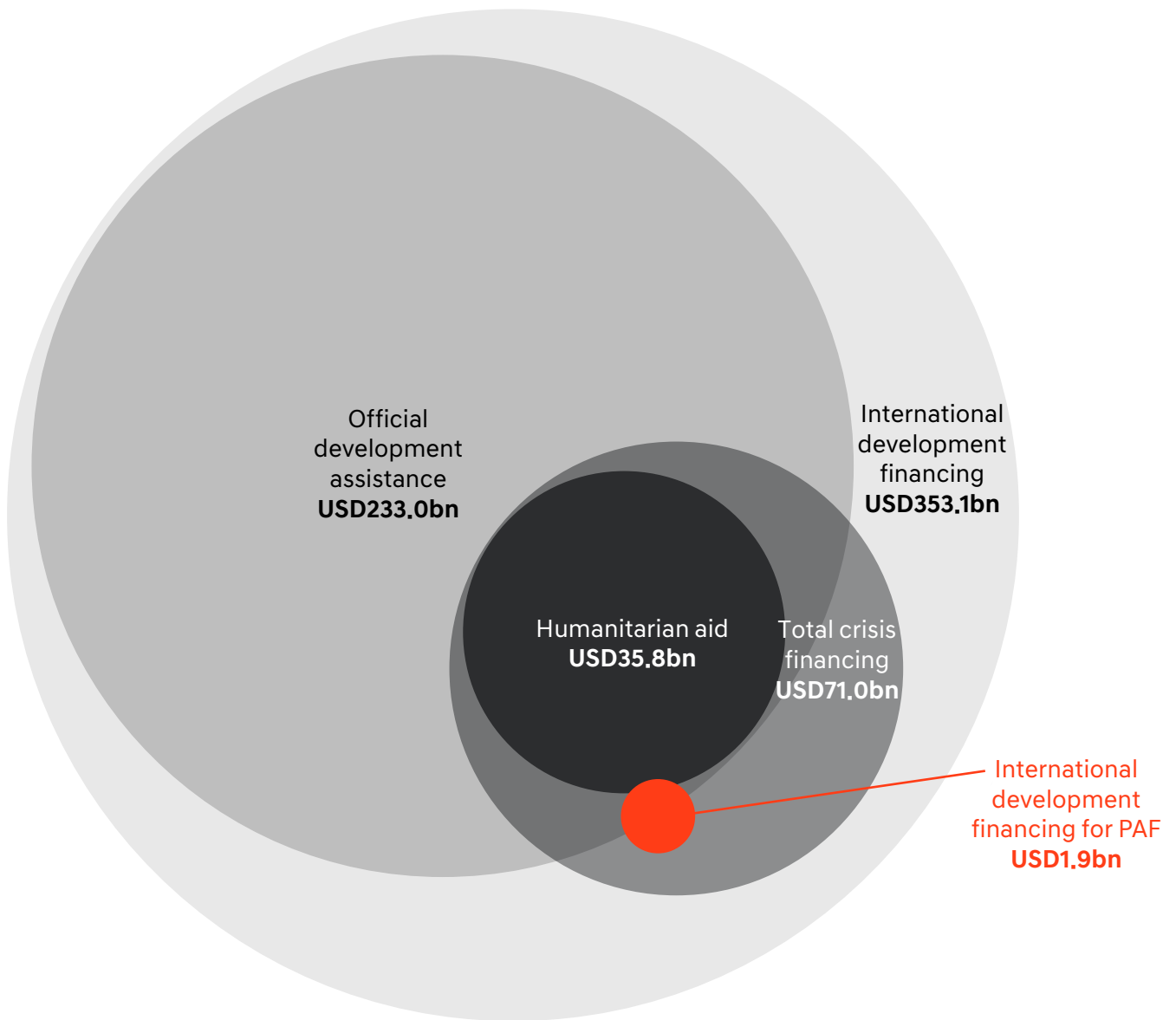
“Transactions by the official sector with countries on the DAC List of ODA Recipients which do not meet the conditions for eligibility as official development assistance, either because they are not primarily aimed at development, or because they have a grant element of less than 25 per cent.” (OECD 2023a)

Total crisis financing is a sub-set of international development financing, which includes activities and flows to organisations whose primary purpose is to deliver prevention, preparedness and response to crises (Centre for Disaster Protection n.d.).

Pre-arranged financing is financing that has been approved in advance of a crisis and that is guaranteed to be released to a specific implementer when a specific pre-identified trigger condition is met.

¹² Donors reporting their ODA and OOF include OECD DAC member countries, countries that are not members, and multilateral organisations, as well as several of the largest private philanthropic foundations working for development. A full list is available here: <https://www.oecd.org/dac/development-cooperation-report/#profiles>

FIGURE 2.1: SITUATING INTERNATIONAL DEVELOPMENT FINANCING FOR PAF WITHIN AID AND AID-LIKE FLOWS IN 2021

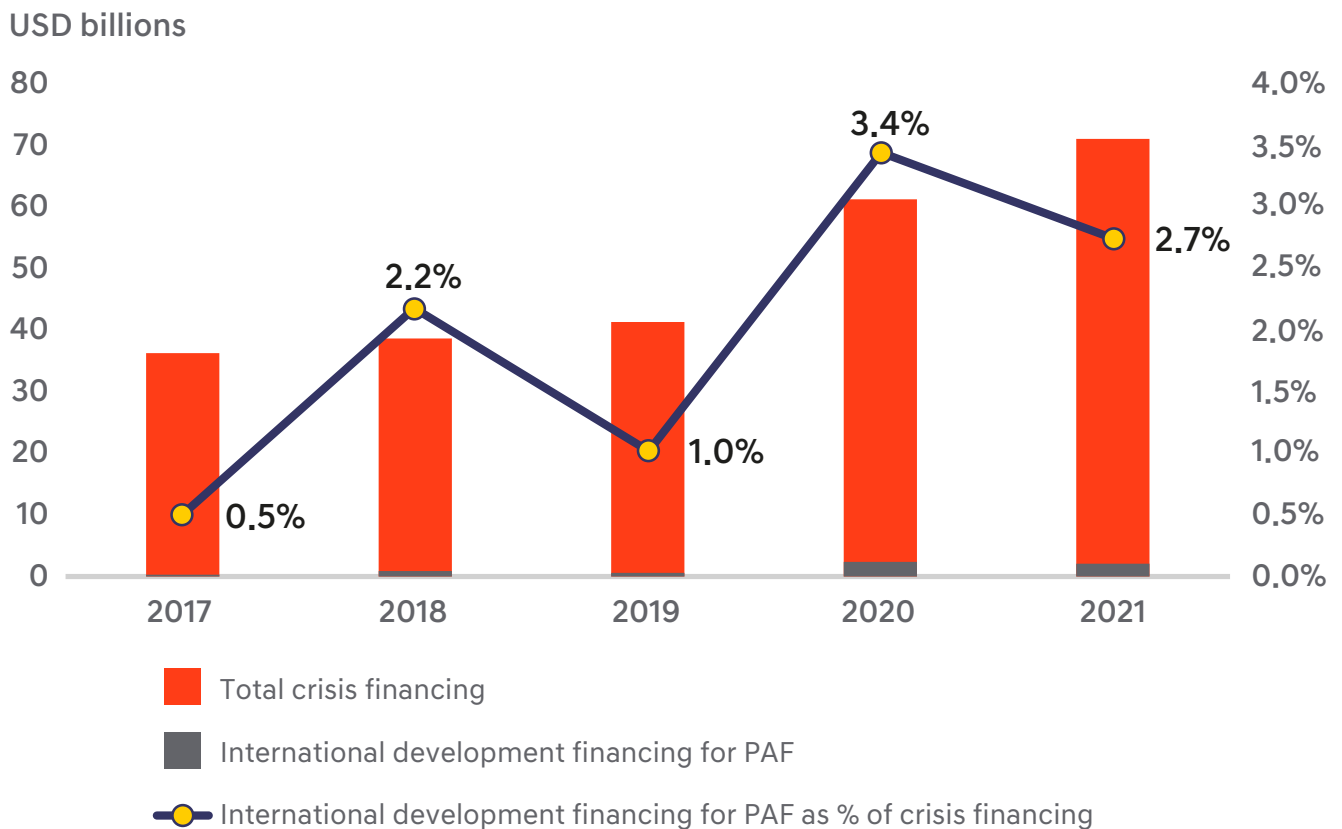


Notes: This figure is for illustrative purposes, hence the size of the circles do not accurately represent the relationship between the corresponding amounts.
Source: Centre for Disaster Protection, based on data from OECD (2023b).

Volumes of crisis financing grew annually between 2017 and 2021, with a sharp increase in 2020 and 2021 in response to the covid-19 pandemic. International development financing for PAF also grew rapidly during this period, from just USD177.2 million in 2017 to USD1.9 billion in

2021. International development financing for PAF, however, remains a relatively small proportion of crisis financing overall, at just 2.7% of total crisis financing flows in 2021 and 2.2% of crisis financing across the five-year period 2017–2021.

FIGURE 2.2: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF AS A PROPORTION OF TOTAL CRISIS FINANCING 2017–2021

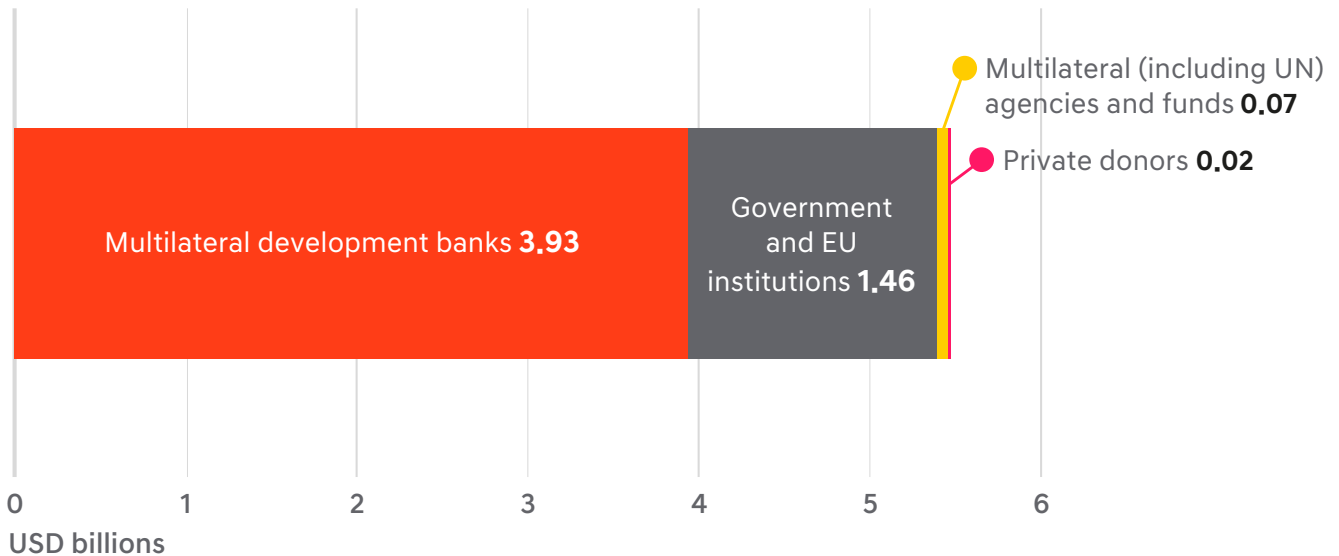


Source: Centre for Disaster Protection, based on OECD data (2023b).

Multilateral development banks (MDBs) are the major providers of international development financing for PAF, contributing 71.8% of the total between 2017 and 2022, while governments and

the European Union (EU) institutions provided 26.6%. Private donors, and multilateral agencies and funds (excluding the MDBs), play a much smaller role (see Figure 2.3).

FIGURE 2.3: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF BY MAJOR DONOR GROUPINGS 2017–2021



Source: Centre for Disaster Protection, based on data from OECD (2023b).

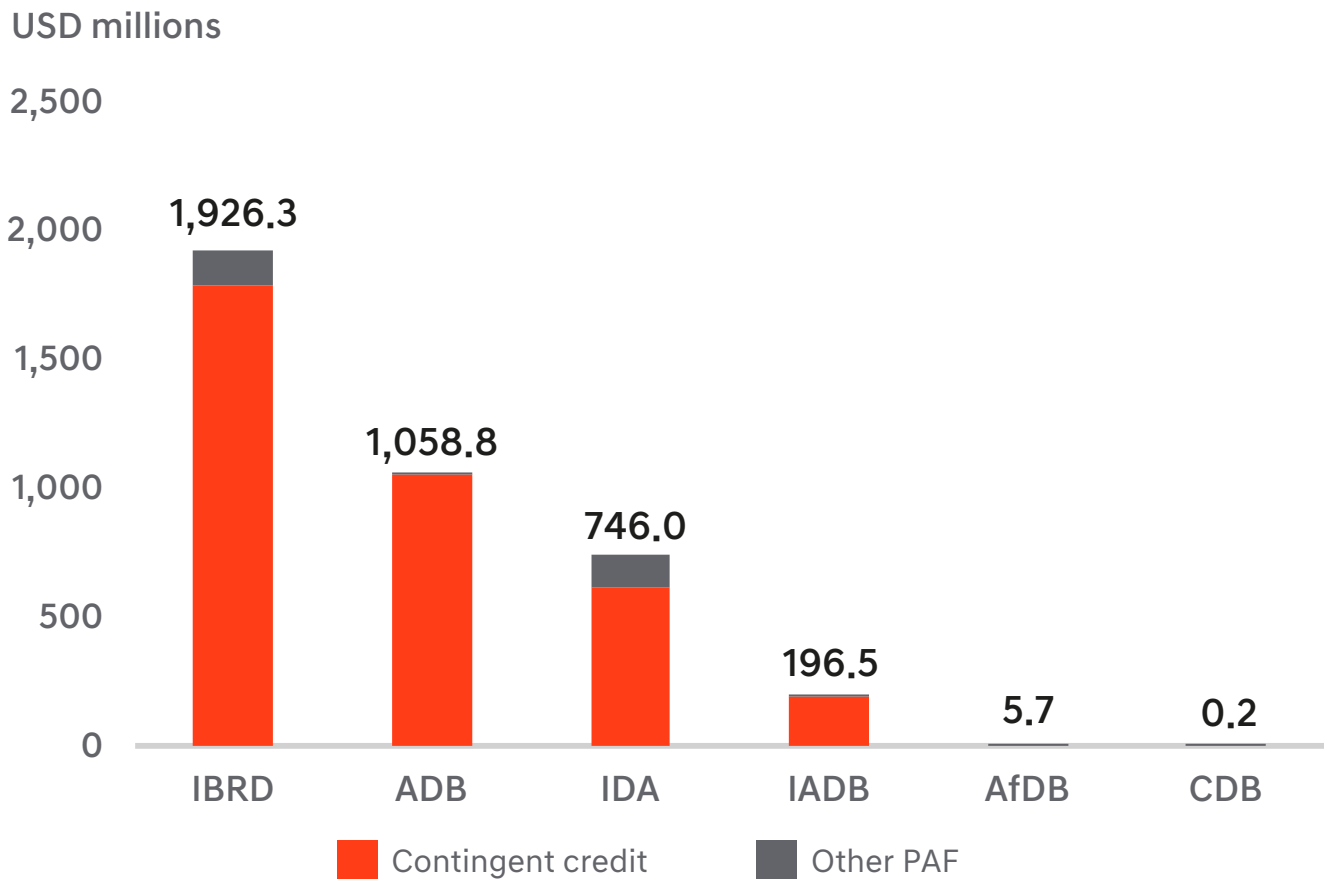
BOX 2.2: DEFINITION OF CONTINGENT CREDIT

Contingent credit is a type of pre-arranged financing whereby a loan is approved in advance of a crisis and is guaranteed to be provided to a specific implementer when a specific pre-identified trigger condition is met.

A large proportion of the international development financing for PAF provided by the MDBs – and therefore of pre-arranged financing

overall - is contingent credit (see Figure 2.4). This includes both ODA loans and less concessional loans that fall within the scope of OOF.

FIGURE 2.4: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF PROVIDED BY THE MULTILATERAL DEVELOPMENT BANKS 2017–2021



Source: Centre for Disaster Protection, based on data from OECD (2023b).

Notes: IBRD = International Bank for Reconstruction and Development, ADB = Asian Development Bank, IDA = International Development Association, IADB = Inter-American Development Bank, AfDB = African Development Bank, CDB = Caribbean Development Bank.

Over time, government recipients will repay these loans. The total disbursements therefore do not represent the cost incurred by the donor. Methods to assess the ‘grant equivalent’ part of concessional loans have been proposed by the OECD DAC and the World Bank (see Box 2.3) which would allow a fairer comparison between ODA grants and ODA loans. These calculations

have been applied to ODA loans in the DAC data since 2018 on a partial basis. The grant equivalent of PAF loans has been calculated in very few cases to date. Therefore, in some cases the Centre’s analysis of international development financing for PAF is presented including and excluding contingent credit to enable assessments of trends and patterns excluding loans.

BOX 2.3: CALCULATING THE ‘COSTS’ OF CONCESSIONAL LOANS

The OECD DAC introduced a new methodology in 2018 for calculating the estimated benefit of concessional loans to the recipient, rather than the opportunity cost to the donor. This makes it easier to compare loans and grants, by introducing a ‘grant equivalent’ system such that reported ODA will be higher for a grant than for a loan, and more concessional loans will earn greater ODA credit than less concessional loans.

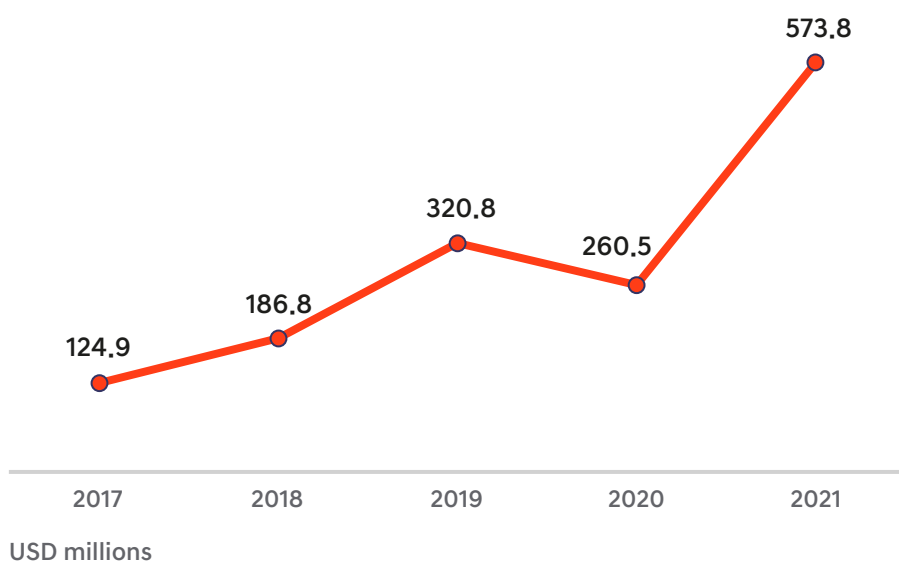
The methodology is based on four factors: the interest rate; the grace period (i.e. the time from the commitment to the first repayment date of the loan); the maturity (the time from the commitment to the last date the loan is expected to be repaid); and the discount rate (which is used to determine the present value of future repayments). The World Bank also has a calculator.

Adapted from Hillier and Plichta (2021).

Because contingent credit payouts are often sizeable in volume, some caution should be exercised in interpreting overall volume changes of international development financing PAF in the OECD DAC data from year to year.¹³ There is a peak in the proportion of international development financing for PAF in 2020 for

example, which is caused by large payouts of this type in response to covid-19. If contingent credit is excluded to smooth the effects of these large payouts, a steadily increasing upward trend in international development financing for PAF can be observed across the last five years (Figure 2.5).

FIGURE 2.5: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF EXCLUDING CONTINGENT CREDIT PAYOUTS 2017–2021



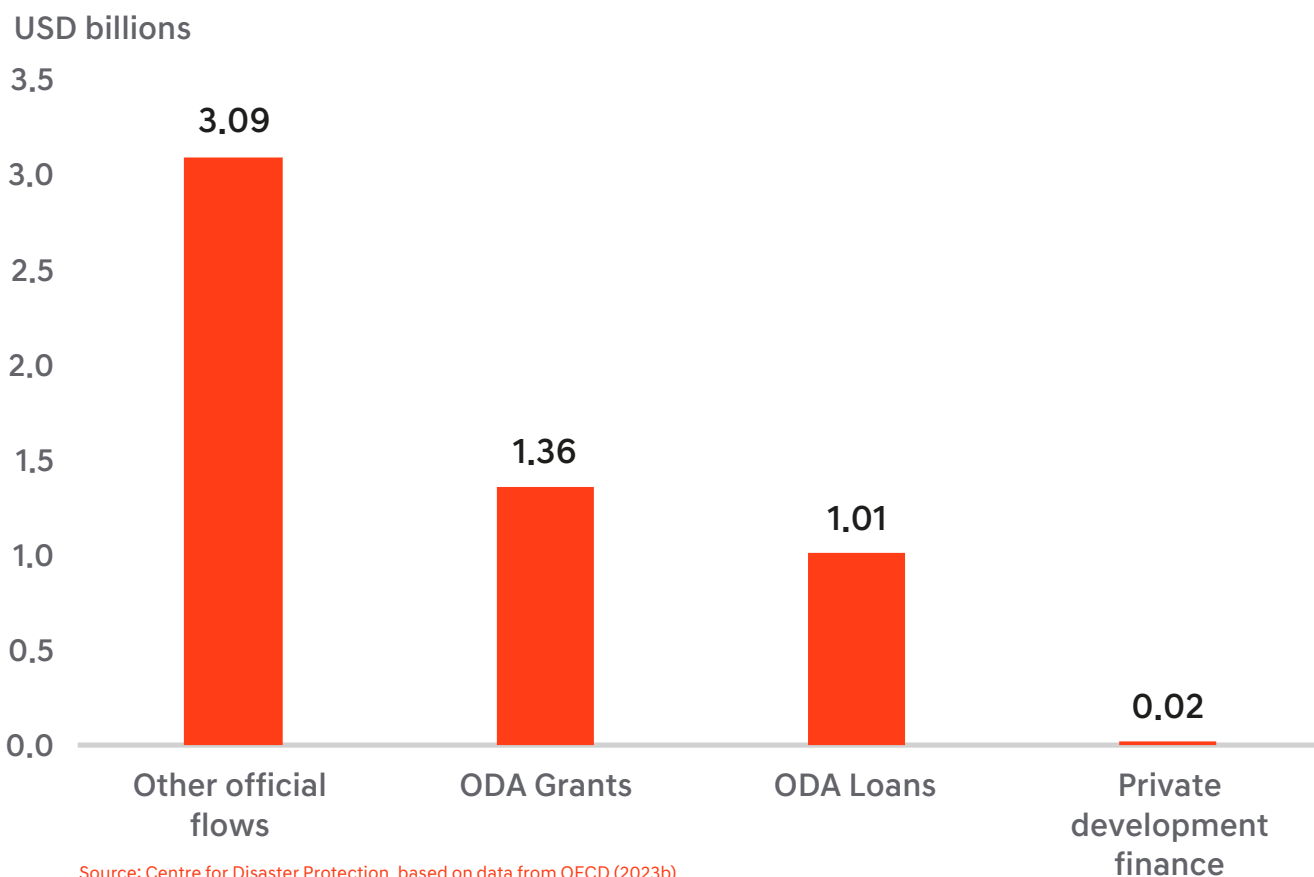
Source: Centre for Disaster Protection, based on data from OECD (2023b).

¹³ This includes funding through the Contingent Financing Facility by the IADB, the contingent disaster financing policy by the ADB, and Cat DDOs by the World Bank's IBRD and IDA, or contingent loans by bilateral donors. While most of this funding is in the form of loans, in the case of the ADB and IDA this can also include some grant funding.

Figure 2.6 shows that more than half of international development financing for PAF (56.4%, USD3.1 billion) between 2017 and 2021 did not qualify as ODA, but fell within the scope of other official flows. Most OOF for pre-arranged financing were provided by the Asian Development Bank (ADB), International Bank

for Reconstruction and Development (IBRD) of the World Bank Group,¹⁴ and Inter-American Development Bank (IADB), with funds flowing to upper-middle-income countries (UMICs) and high-income countries, which do not qualify for most concessional financing under MDB rules.¹⁵

FIGURE 2.6: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF BY FUNDING TYPE 2017–2021



Source: Centre for Disaster Protection, based on data from OECD (2023b).

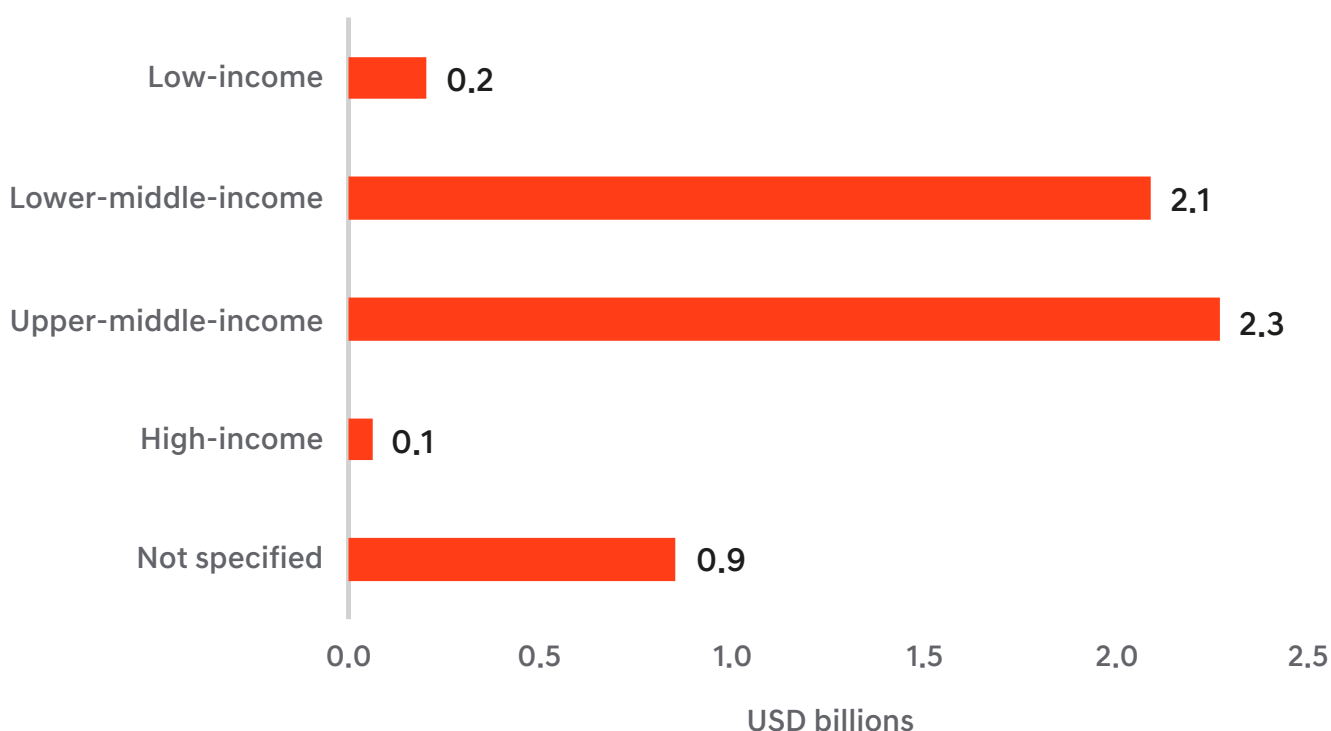
14 The IBRD is the part of the World Bank Group that provides loans, guarantees, risk management products, and advisory services to middle-income and creditworthy low-income countries, as well as coordinating responses to regional and global challenges: <https://www.worldbank.org/en/who-we-are/ibrd>

15 Other official flows include “grants to developing countries for representational or essentially commercial purposes; official bilateral transactions intended to promote development, but having a grant element of less than 25%; and, official bilateral transactions, whatever their grant element, that are primarily export-facilitating in purpose. This category includes, by definition: export credits extended directly to an aid recipient by an official agency or institution (official direct export credits); the net acquisition by governments and central monetary institutions of securities issued by multilateral development banks at market terms; subsidies (grants) to the private sector to soften its credits to developing countries; and, funds in support of private investment.” (OECD 2023a)

International development financing for PAF is concentrated in middle-income countries, with just 3.7% (USD200.8 million) reaching low-income countries between 2017 and 2021. Meanwhile, high-income and upper-middle-income countries have received at least 42.6% of this financing (USD2.3 billion) and lower-middle income countries 38.2% (USD2.1 billion) (see Figure 2.7).¹⁶

The concentration of international development financing for PAF in middle-income countries is at odds with the distribution of poverty. The poverty level for low-income countries is 45.3%, while it is 12.4% for lower-middle-income countries and 2.0% for upper-middle-income countries (World Bank Group 2023a).¹⁷

FIGURE 2.7: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF BY INCOME GROUP 2017–2021



Source: Centre for Disaster Protection, based on data from OECD (2023b) and World Bank Group (2023b).

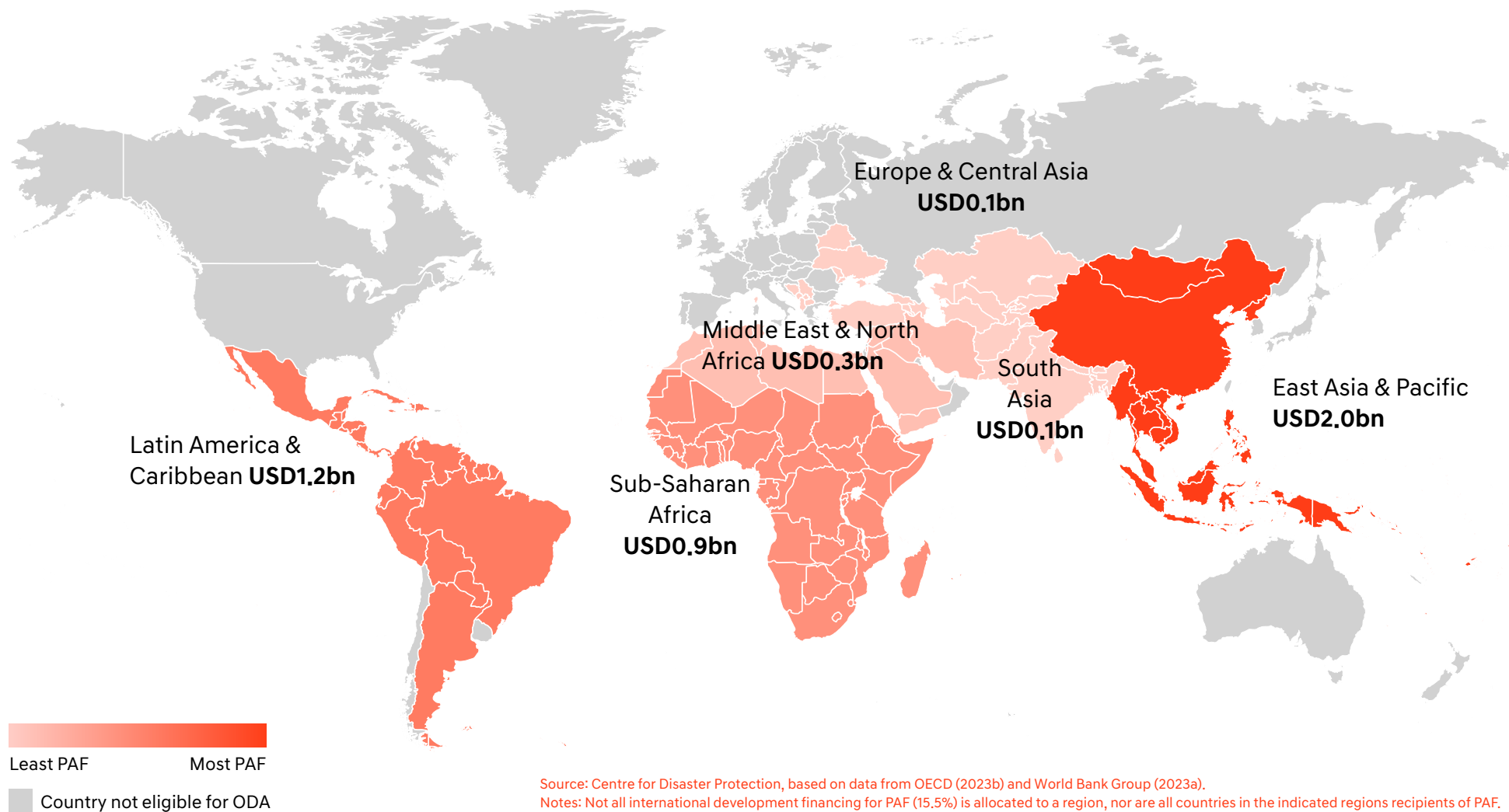
The ten largest recipients of pre-arranged financing across these years are all middle-income countries, with the Philippines (USD1.1 billion), Indonesia (USD640.9 million) and Mauritius (USD357.6 million) in the top three.

The distribution of PAF by region in Figure 2.8 reflects the importance of these recipients, with East Asia and Pacific receiving 37.2% (USD2.0 billion) of the total amount.

¹⁶ The remaining 11% of the total PAF volume is not allocated to specific countries so cannot be classified by income group.

¹⁷ Using data for 2018, as earlier data is not available for low-income countries.

FIGURE 2.8: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF DISBURSEMENTS BY REGION 2017–2021



Between 2017–2021, high-income countries received the highest levels of international development financing for PAF per capita (USD12.4) (see Figure 2.9). This number was driven by two high-income countries, Panama and Guyana, which received a total of USD43.4 million and USD22.0 million respectively. Low-income countries received the lowest amount of international development financing for PAF per capita (USD0.3), below the overall average for ODA recipient countries (USD0.7).

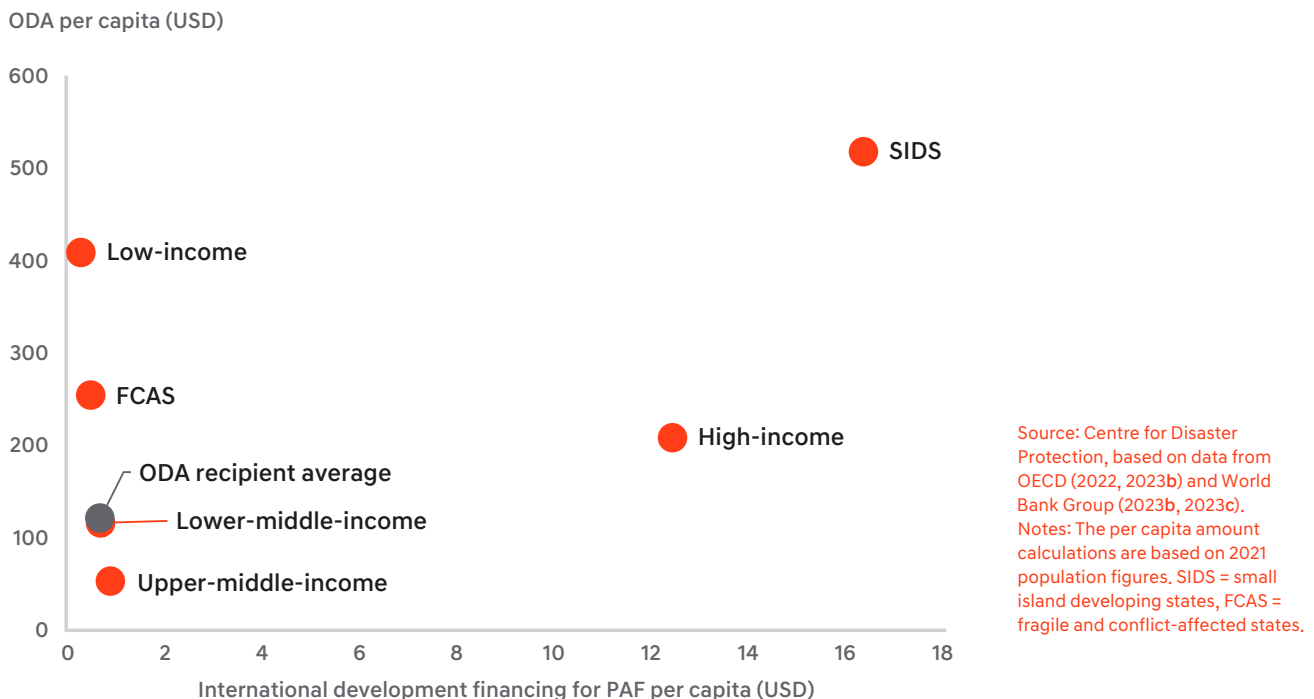
Comparing this to the amounts of ODA per capita across income groups, Figure 2.9 shows that international development financing for PAF is less pro-poor than overall ODA. Levels of ODA per capita are significantly higher for low-income countries (USD408.3) compared to lower-middle-income countries (USD116.2) and upper-middle-income countries (USD53.5).

The opposite is observed for OOF, where the per capita amounts are larger for higher income classifications. This corresponds with the lower concessionality of this financing and reflects the same trend as PAF per capita. The significant role that OOF plays in international development financing for PAF explains this parallel trend.

SIDS received a higher amount of international development financing for international development financing for PAF per capita (USD16.3). Together, SIDS received USD949.0 million (17.3%) of international development financing for PAF.

FCAS received relatively low per capita amounts of international development financing for PAF, in contrast with overall ODA allocation patterns. The ODA per capita amount for FCAS (USD254.7) is higher than the ODA recipient average (USD121.2), while PAF per capita (USD0.5) is lower than the average for all ODA recipient countries (USD0.7).

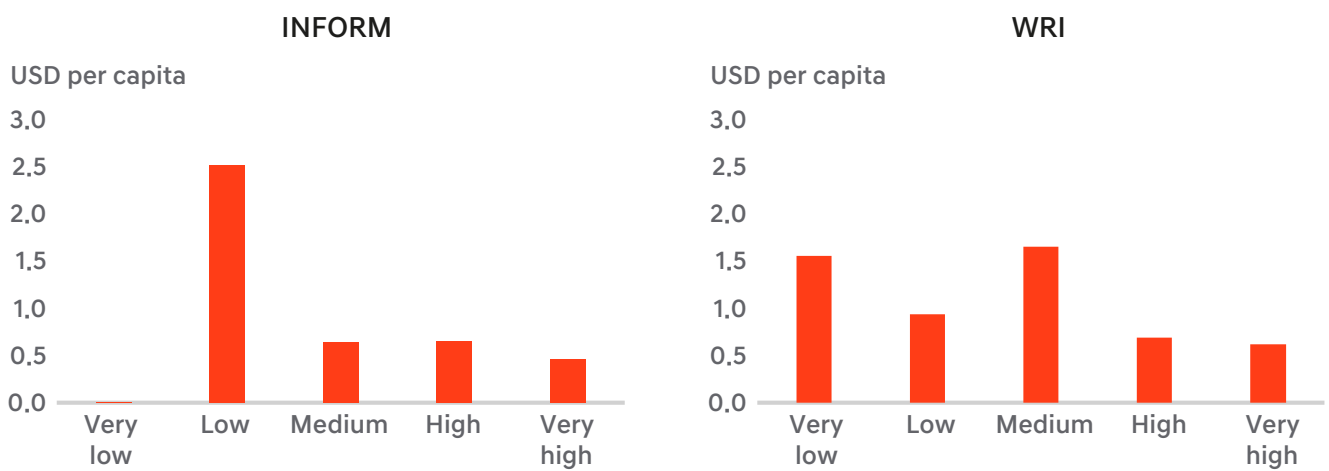
FIGURE 2.9: ODA AND INTERNATIONAL DEVELOPMENT FINANCING FOR PAF PER CAPITA BY COUNTRY CLASSIFICATION 2017–2021



The distribution of international development financing for PAF also runs counter to assessments of vulnerability to risk. There are different existing measures for quantifying the disaster risk that countries face. Examples of those measures are the INFORM Risk Index and the World Risk Index (WRI). Different measures consider and weigh different factors that can

influence a country’s risk profile, so the classification of countries can vary depending on this, as shown in Figure 2.10. However, for both indices presented, the per capita international development financing for PAF amount is relatively low for countries in the very high risk (USD0.5 and 0.6, respectively) and high risk (USD0.7 for both indices) categories.

FIGURE 2.10: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF PER CAPITA FOR DIFFERENT RISK CLASSIFICATIONS BY INFORM AND WRI 2017-2021



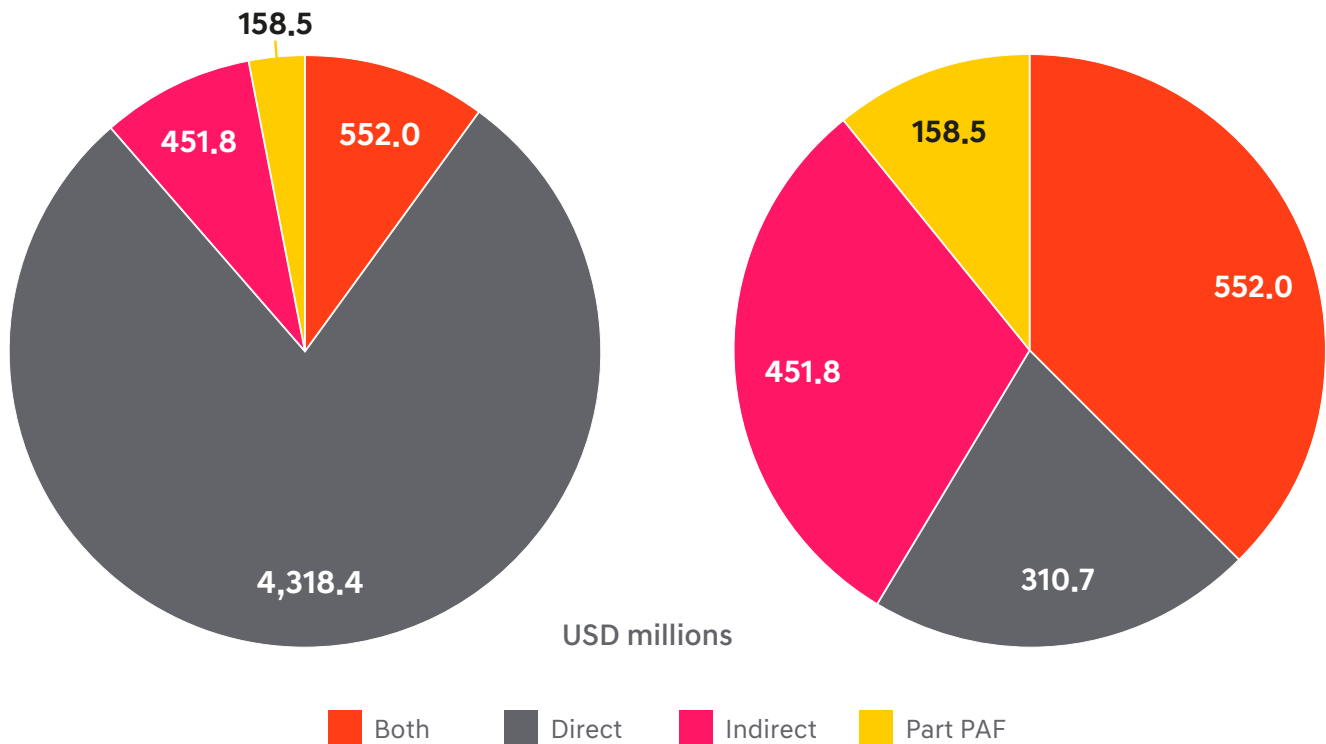
Source: Centre for Disaster Protection, based on data from Bündnis Entwicklung Hilft (2022), INFORM (2022), OECD (2023b) and World Bank Group (2023c).

Notes: West Bank and Gaza Strip is not available in the WRI data. The per capita amount calculations are based on 2021 population figures.

The Centre’s analysis breaks down international development financing for PAF into direct PAF and investments in enabling conditions (indirect PAF). The CRS data does not allow us to draw strong conclusions on the balance between direct and investments in enabling conditions, because in many cases funding transactions include both – for example, technical assistance and premium support – but it is not possible to differentiate the two within a single transaction.¹⁸ Improving reporting on the balance of direct PAF and

investments in enabling conditions is an obvious priority to ensure that funds are focused on delivering impact for vulnerable people. If contingent credit is included in the analysis, 78.8% (USD4.3 billion) of international development financing for PAF between 2017 and 2021 would meet the definition of direct PAF. When contingent credit is excluded, the analysis finds that 21.2% (USD310.7 million) of pre-arranged financing counts as direct.

FIGURE 2.11: AMOUNTS PER TYPE OF INTERNATIONAL DEVELOPMENT FINANCING FOR PAF 2017–2021, INCLUDING (LEFT) VS. EXCLUDING (RIGHT) CONTINGENT CREDIT



Source: Centre for Disaster Protection, based on data from OECD (2023b).

18 Designations have also been manually assigned by the Centre which rely on the quality of the project description and require subjective interpretation.

2.2 IMPROVING DATA REPORTING: NEAR REAL-TIME TRACKING

OECD DAC data is comprehensive and comparable, being reported and curated against agreed standards. This entails, however, a time-consuming reporting and verification process. The latest DAC data is typically around 18 months behind the present – the latest available detailed data in 2023 is for the year 2021, for example. The Centre therefore explored the possibility of using data reported to the International Aid Transparency Initiative (IATI)¹⁹ as a future solution to provide closer to real-time insights on international development financing for PAF.

There are limitations to what IATI data can tell us with respect to international development financing for PAF, since it is a non-curated database with content and timing of uploads at the discretion of those reporting. As such, the data provided can differ considerably to how they

would report to the OECD DAC (more/less projects, different values, more/less project information) and retrospective changes are possible. The timeliness of data provided by publishers can also change. However, a critical mass of reporting organisations provide monthly data within two months of the month end, and therefore it has a distinct advantage in delivering timely data.

Analysis of international development financing for PAF in 2021 reported to the OECD DAC CRS indicates that more than 90% is disbursed by four donors: the ADB, the World Bank, Germany²⁰ and Inter-American Development Bank (IADB). The ADB, World Bank and IADB all reported in full to IATI up until the end of 2022. Analysing near real-time data from these donors can therefore allow insights into current trends in PAF.

BOX 2.4: SUMMARY OF METHODOLOGY TO IDENTIFY PAF IN IATI DATA

Data was retrieved from the IATI datastore and registry for the identified donors and a keyword search performed on data in the fields of 'Title narrative', 'Description narrative' and 'Transaction description narrative'. Consistent with the Centre's approach to identifying PAF in the CRS data, keyword searches were performed on lists for (1) funding for anticipatory action; and (2) pre-arranged financing. Where projects contained one or more of the keywords, these were manually reviewed and projects marked as Indirect PAF, Direct PAF, Both or only part PAF. Where the project had already been manually reviewed for the CRS analysis in 2020 or later, these judgements were applied.

See Annex 3 for a full description of the methodology.

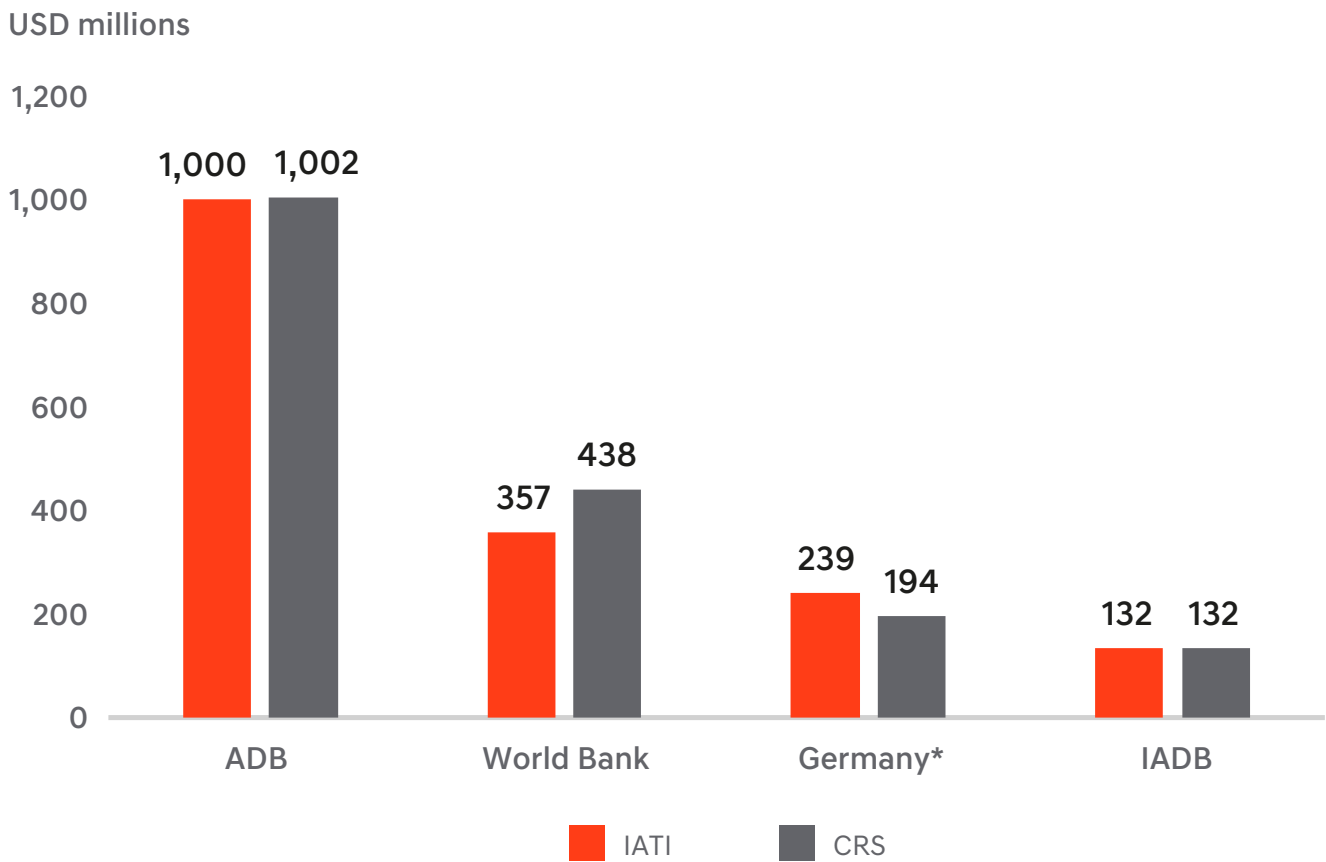
19 IATI is a widely used platform for reporting on development and humanitarian aid by 'donor governments, development finance institutions and UN agencies, non-governmental organisations, foundations and private sector organisations. More than 1,500 organisations have published their data to IATI.' <https://iatistandard.org/en/>

20 A number of government agencies and ministries report ODA. For Germany, the majority of this is provided by BMZ and the German Foreign Office. Together they provided 99% of Germany's disbursements to PAF in 2021. Despite some differences in how they report, for simplicity and consistency their PAF amounts are combined here.

Comparison of what these four donors reported to IATI and the CRS in 2021 – the latest year for which CRS data is available – indicates that the available information in IATI for identifying international development financing for PAF is relatively comprehensive. The IADB reported the

same volumes of PAF to IATI as to the CRS in 2021, at USD132 million. While there is a slightly larger difference between the two data sources (USD81.1 million) for the World Bank, Figure 2.12 shows that overall the amounts are comparable.

FIGURE 2.12: INTERNATIONAL DEVELOPMENT FINANCING FOR PAF REPORTED TO IATI AND TO THE CRS FOR 2021



Source: Centre for Disaster Protection, based on data from OECD (2023b) and IATI (2023).

Notes: For all donors other than IADB, data comes from the IATI Datastore, while for the IADB this was retrieved from the IATI Registry. * Germany = BMZ and GFFO combined. BMZ values are based on budgets due to issues with their reported disbursements. Values are converted to USD using a mid-year rate and not deflated. Due to the real-time nature of these figures, they are preliminary and subject to change.

Using data published to IATI, some early indications of international pre-arranged finance can be observed for 2022, which provides additional context and data points to interpret data captured in the CRS. Table 2.1 shows that the total amount of international development financing for PAF in 2022 based on the current reporting is significantly lower than the 2021 total of USD1.7 billion. However, the 2021 peak was

comprised of two large contingent credit disbursements by the ADB to the Philippines and Indonesia, which add up to USD1 billion. When excluding these ADB payouts, 2022 shows largely the same situation in terms of key donors as in 2021, with the World Bank being the largest player in paying for pre-arranged financing, with USD430.7 million.

TABLE 2.1: PRE-ARRANGED FINANCING AMOUNTS PER DONOR FOR 2022, AS IDENTIFIED IN IATI

Donor	Amount (USD millions)
ADB	37.1
World Bank	430.7
Germany*	161.0
IADB	63.5
Total	692.4

Source: Centre for Disaster Protection, based on data from IATI (2023).

Notes: For all donors other than IADB, data comes from the IATI Datastore, for the IADB this was retrieved from the IATI Registry.

*Germany = BMZ and GFFO combined. BMZ values are based on budgets due to issues with their reported disbursements. Values are converted to USD using a mid-year rate and not deflated. Due to the real-time nature of these figures, they are preliminary and subject to change.

Based on this initial exploration, there is a compelling case for using IATI as a source for tracking international development financing for PAF in near real-time in future, combined with targeted data and reporting advocacy. Notably, it is vital more donors report in a timely and comprehensive manner. Similar to CRS reporting,

when donors provide insufficient detail about their international development financing and projects, it becomes more challenging to identify financing for PAF within the data. Additional reporting fields in IATI, including purpose codes or markers could simplify this.

3

FINANCIAL PROTECTION PROVIDED BY PRE-ARRANGED FINANCING

Currently, the most comprehensive data on the coverage of aid-supported pre-arranged financing mechanisms targeting vulnerable low- and middle-income settings, and the financial protection against shocks these provide, is collected by the Global Shield Secretariat (formerly the InsuResilience Global Partnership (IGP) Secretariat) members as part of their annual reporting to monitor progress towards their agreed Vision 2025 (IGP 2021).²¹ It should be noted that the Global Shield Secretariat data includes instruments beyond insurance, including contingent budgets, contingent credit, microinsurance (for businesses and households), sovereign and sub-sovereign risk transfer mechanisms, and shock responsive social protection systems. Reporting is voluntary and therefore not comprehensive. It also focuses on a sub-set of possible pre-arranged financing products, notably products supported by G20+ donors which address climate and disaster risks, and not, for example, the development of private insurance markets beyond climate and disaster risks.²²

The volumes of coverage reported are the maximum potential payouts that would be provided by specific financial instruments if trigger conditions were met. Caution should be exercised in interpreting this data, as their likelihoods of triggering vary widely and coverage may be a poor indicator of average annual disbursement. For example, cat bonds may have very high levels of coverage, but they are typically for low-frequency, high-impact events. They are therefore much less likely to pay out in full any given year than, for example, a contingent credit arrangement, which might target more frequent shocks and be expected to pay out in full relatively frequently. Consequently, while cat bonds may give the impression of large volumes of coverage, this coverage cannot be readily compared with the coverage provided by other types of instrument.

The Global Shield Secretariat data indicates that the maximum coverage provided by pre-arranged financing instruments reported by their members has grown during the last three years, from USD7.4 billion in 2020, to USD8.8 billion in 2021, to USD9.0 in 2022.²³

21 In 2022, 475 projects were reported by 29 Global Shield Secretariat programmes and members (IGP 2023a).

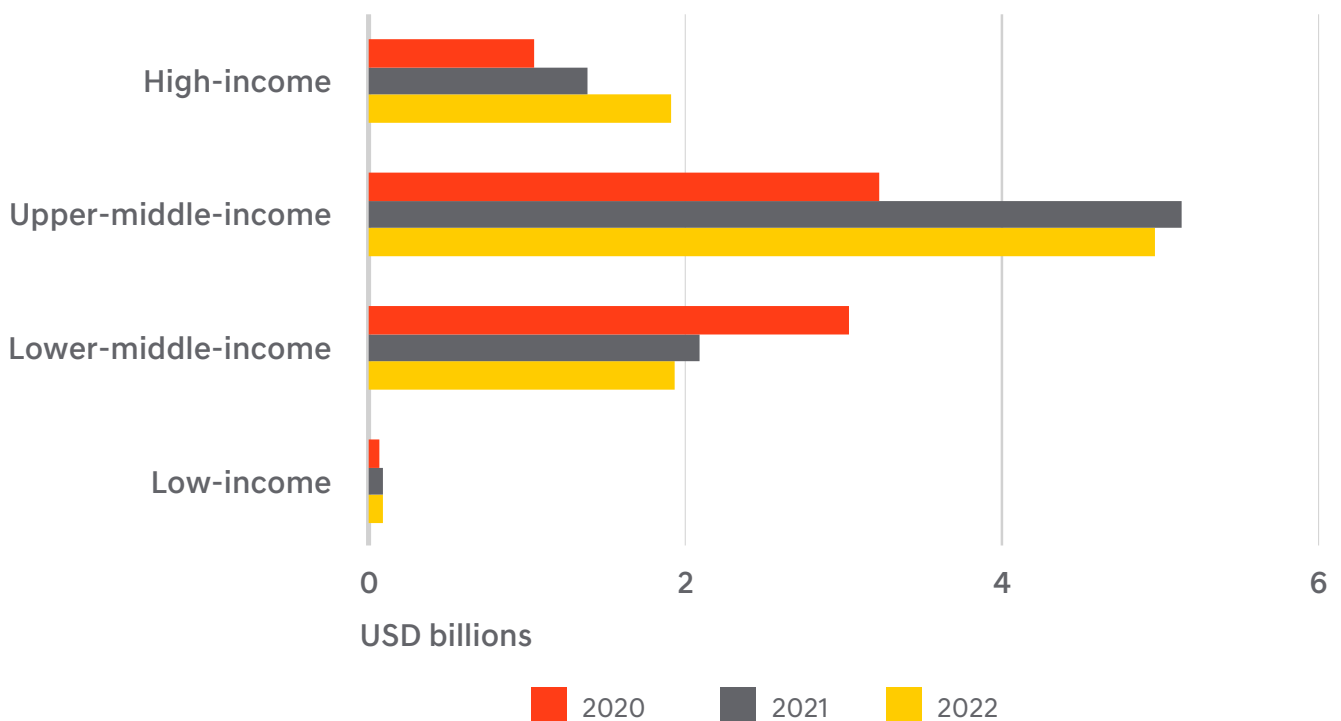
22 This means that the Global Shield Secretariat data does not capture a broad scope of microinsurance schemes, of which more comprehensive coverage is collected annually by the Microinsurance Network: <https://microinsurancenet.org/the-landscape-of-microinsurance>

23 It should be noted that coverage levels underestimate total volumes of coverage as not all reporting members have provided coverage values.

Across the three-year reporting period, volumes of coverage have been concentrated in middle-income countries, which reported 82.1% of coverage between 2020 and 2022 (split 53.6% in UMICs and 28.4% in LMICs). Notably, volumes and the total share of coverage has grown in UMICs and fallen in LMICs across this three-year period (see Figure 3.1). Volumes of coverage in emerging high-income countries (including

predominantly small island states) have also grown.²⁴ This concentration in coverage in higher-income countries reflects higher levels of readiness and demand for pre-arranged financing, as well as higher values of exposed assets. Coverage in low-income countries, meanwhile, has remained relatively static at just 1.0% of total reported coverage across the 2020-22 period.

FIGURE 3.1: PRE-ARRANGED FINANCING COVERAGE VOLUMES PER INCOME GROUP 2020-22



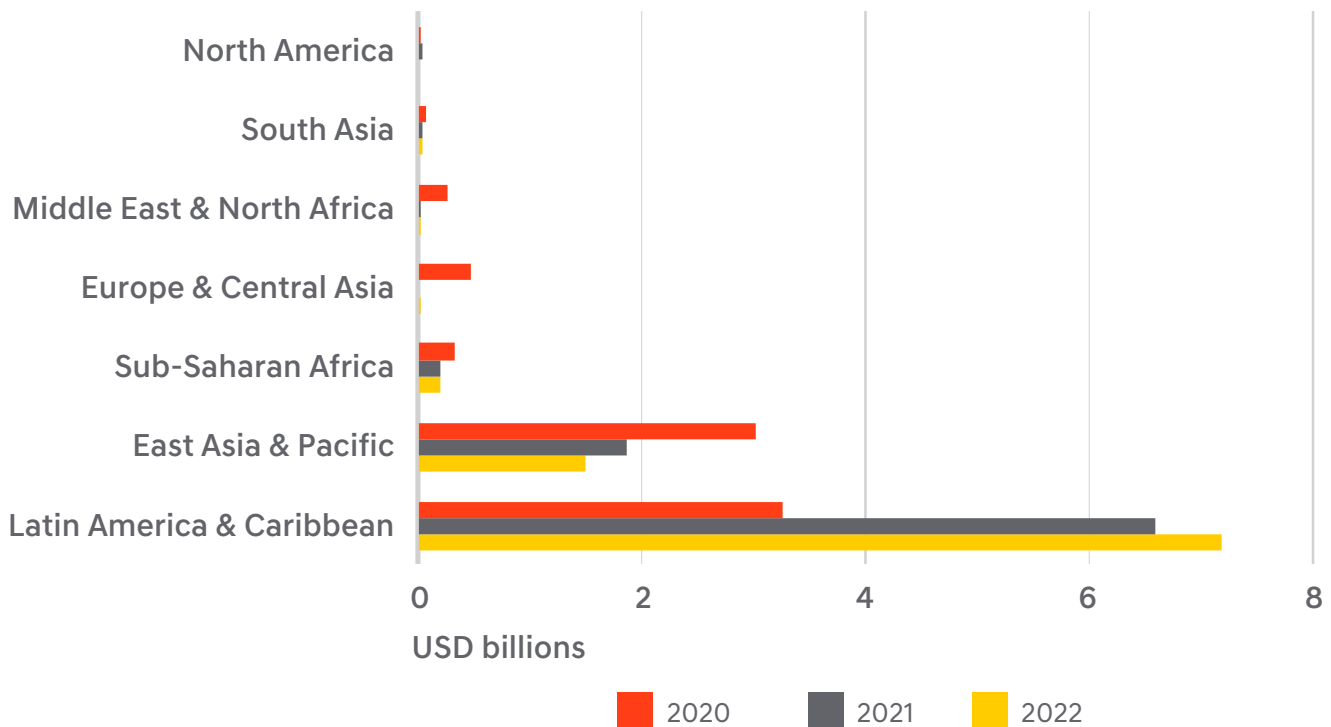
Source: Centre for Disaster Protection, based on data from the Global Shield Secretariat (2023b) and the World Bank Group (2023).

²⁴ These include, for example, small island states plus Panama, Uruguay and Chile.

This growing concentration of coverage in upper-middle-income and high-income countries corresponds with the geographical distribution of coverage illustrated in Figure 3.2, which is strongly concentrated in Latin America and the Caribbean, a region comprised of predominantly high-income and upper-middle-income countries.²⁵ Coverage in this region has seen rapid growth, more than doubling between 2020 and

2022, with the region’s share of the total coverage increasing from 44.1% in 2020 to 80.2% in 2022. In contrast, coverage in East Asia and the Pacific has halved, from USD3.0 billion in 2020 to USD1.5 billion in 2022. Coverage in all other world regions (excluding Latin America and the Caribbean, and East Asia and the Pacific) remained low across the 2020–22 period, totalling just 6.4% (USD1.6 billion) for all regions.

FIGURE 3.2: PRE-ARRANGED FINANCING COVERAGE VOLUMES BY WORLD REGION 2020–22



Source: Centre for Disaster Protection, based on data from the Global Shield Secretariat (2023b) and the World Bank Group (2023).

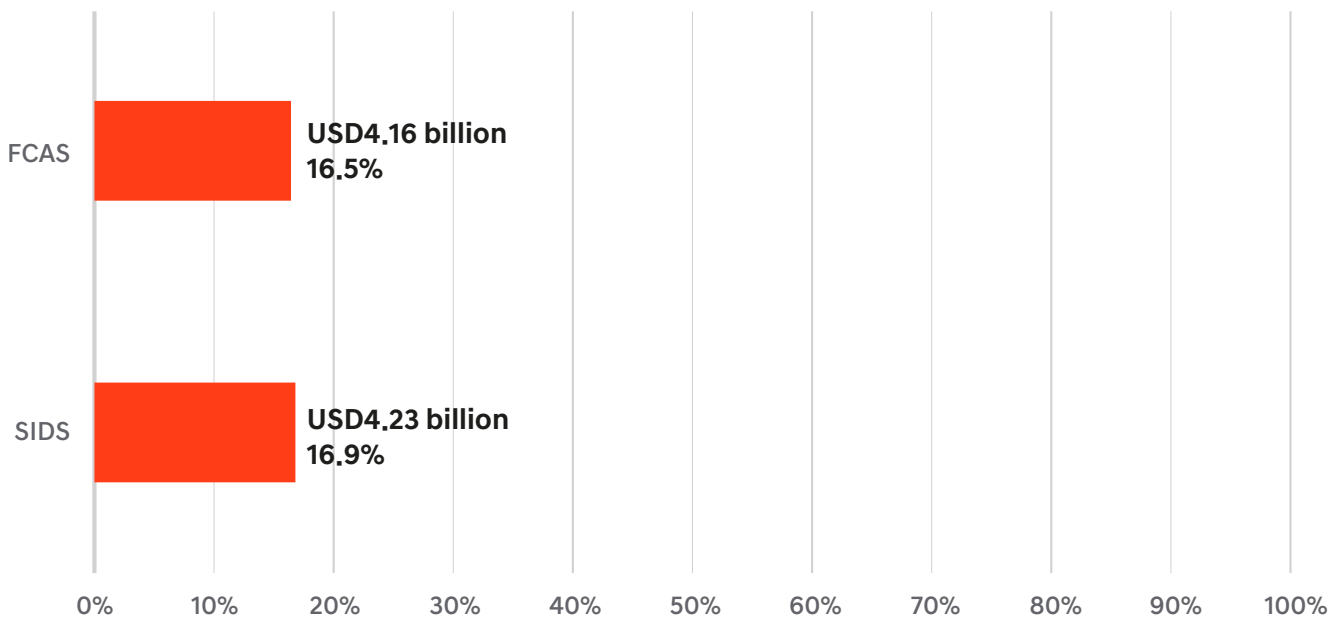
Notes: For USD114 million (0.5%) of the coverage volume, the region is not recorded.

²⁵ Under the World Bank’s most recent classification (based on 2022 income levels), the Latin America and Caribbean region comprises 17 high-income countries, 19 UMICs, 5 LMICs and one (Venezuela) not currently classified.

Figure 3.3 shows that across the 2020–22 reporting period, the majority of coverage (83.5%) has been for countries that are not fragile and/or conflict affected. Only USD4.16 billion (16.5%) of coverage was provided in FCAS. A

similar proportion of the coverage volume went to small island developing states. These countries benefitted from USD4.23 billion or 16.9% of the overall coverage.

FIGURE 3.3: PROPORTION OF PAF COVERAGE FOR SMALL ISLAND DEVELOPING STATES AND FRAGILE AND CONFLICT-AFFECTED STATES 2020–22

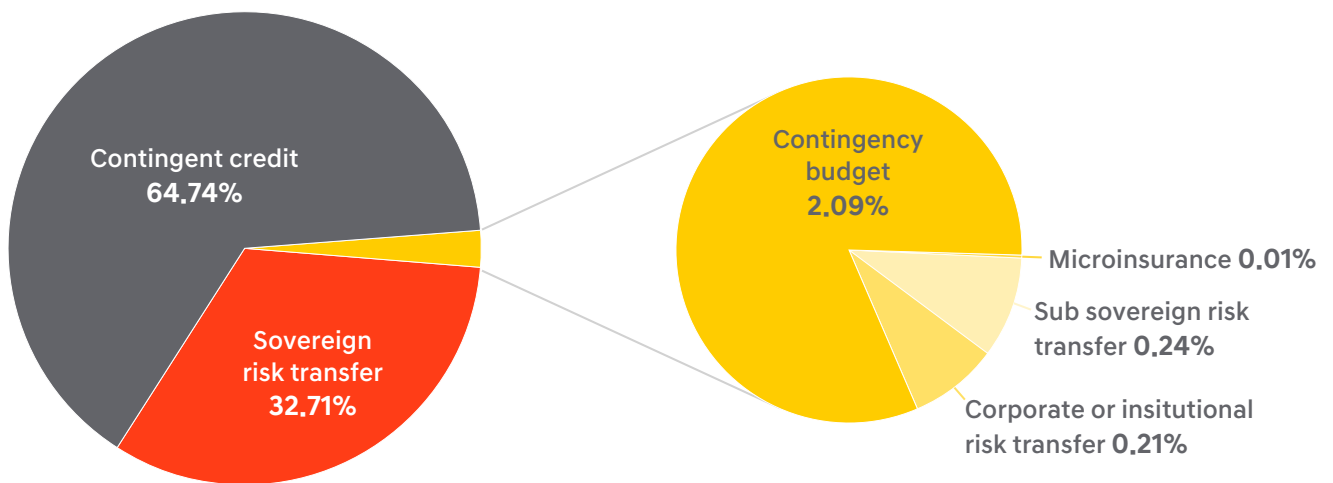


Source: Centre for Disaster Protection, based on data from the Global Shield Secretariat (2023b) and OECD (2022).

By far the largest volumes of coverage were provided through contingent credit instruments, which generated USD16.3 billion of coverage across the 2020–22 period (see Figure 3.4). Sovereign risk transfer instruments provided a further USD8.2 billion in coverage. Volumes of coverage provided by all remaining instruments

were extremely small in comparison, with sub-sovereign instruments generating USD60.9 million and corporate or institutional risk transfer instruments USD52.9 million in coverage across the reporting period. Microinsurance, meanwhile, provided just USD1.8 million in coverage.

FIGURE 3.4: PRE-ARRANGED FINANCING COVERAGE BY INSTRUMENT TYPE 2020–22



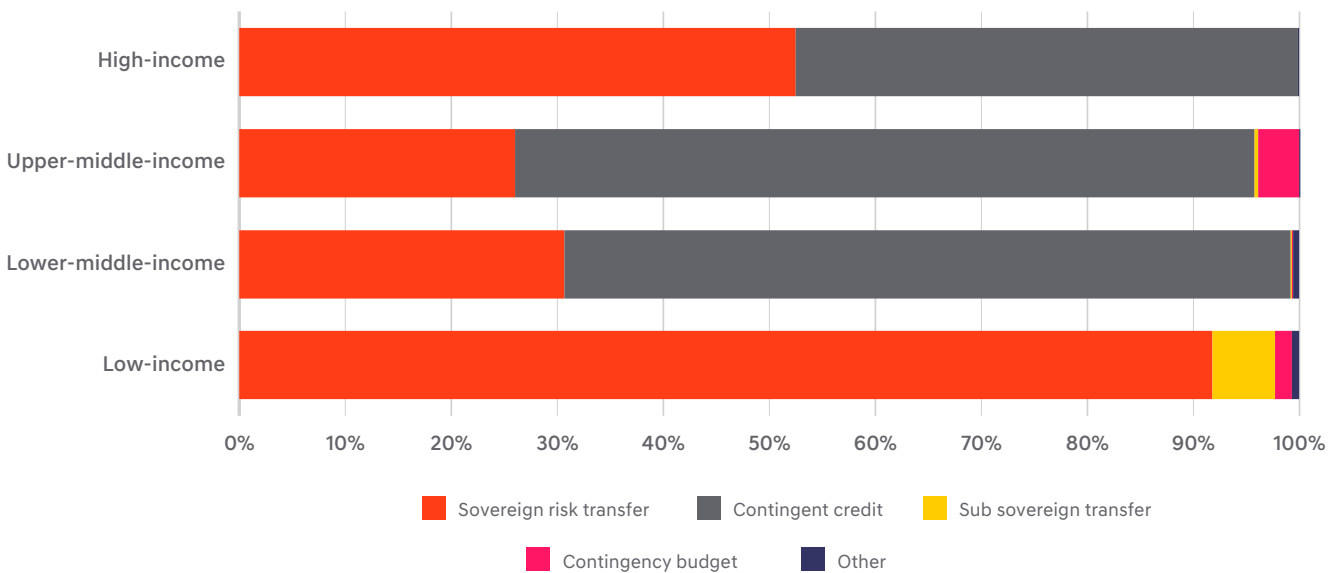
Source: Centre for Disaster Protection, based on data from the Global Shield Secretariat (2023b).

Notes: In 2022, there is a coverage volume of USD4.5 million (0.02%) for which the instrument type is not recorded.

There are clear differences in the volumes of coverage provided by different instrument types across low-income and middle-to-high-income countries (see Figure 3.5). In low-income countries, by far the largest share of coverage was provided by sovereign risk transfer instruments, although it should be noted that the overall volume of coverage was relatively low at USD237.5 million, of which more than half came from the African Risk Capacity (ARC) regional risk pool (USD165.3 million). Notably, no contingent credit was reported across the

2020–22 period in low-income countries. In contrast, contingent credit provided the largest volumes and shares of coverage in middle-income countries (USD4.8 billion in LMICs; USD9.3 billion in UMICs) followed by sovereign risk transfer instruments (USD2.2 billion in LMICs; USD3.5 billion in UMICs). In high-income countries, most of the USD2.3 billion sovereign risk transfer coverage was made up of insurance provided through the Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC) regional risk pool and IBRD-arranged cat bonds.

FIGURE 3.5: PROPORTION OF PRE-ARRANGED FINANCING COVERAGE BY INCOME GROUP, FOR DIFFERENT INSTRUMENT TYPES 2020–22



Source: Centre for Disaster Protection, based on data from the Global Shield Secretariat (2023b) and the World Bank Group (2023).

Notes: Other = Microinsurance Households, Corporate or Institutional Risk Transfer, Instrument not found.

4

DEVELOPMENTS IN THE PRE-ARRANGED FINANCING TOOLKIT

Pre-arranged financing sits at the intersection of private financing, risk modelling and development finance, and is a technical field of constant adaptation and innovation. The following section reflects on trends and developments in three of the most significant PAF instruments, both in volumes

of international development financing investments and in financial protection or coverage against shocks. This section also considers anticipatory action, which, while relatively small in scale at present, targets low-income, fragile and conflict-affected settings.

4.1 CATASTROPHE BONDS

Catastrophe bonds, or cat bonds, are a form of risk transfer instrument in use since 2006 by governments, risk pools and development banks to transfer risk to investors in the international capital markets. This section focuses on cat bonds which have been issued to provide financial protection for governments (sovereign cat bonds) in low- and middle-income countries.

The sovereign cat bonds reviewed here share a number of similar characteristics:

- **Coverage term:** cat bonds provide multiple years of coverage – policy terms of sovereign cat bonds reviewed here range from 2–4 years.

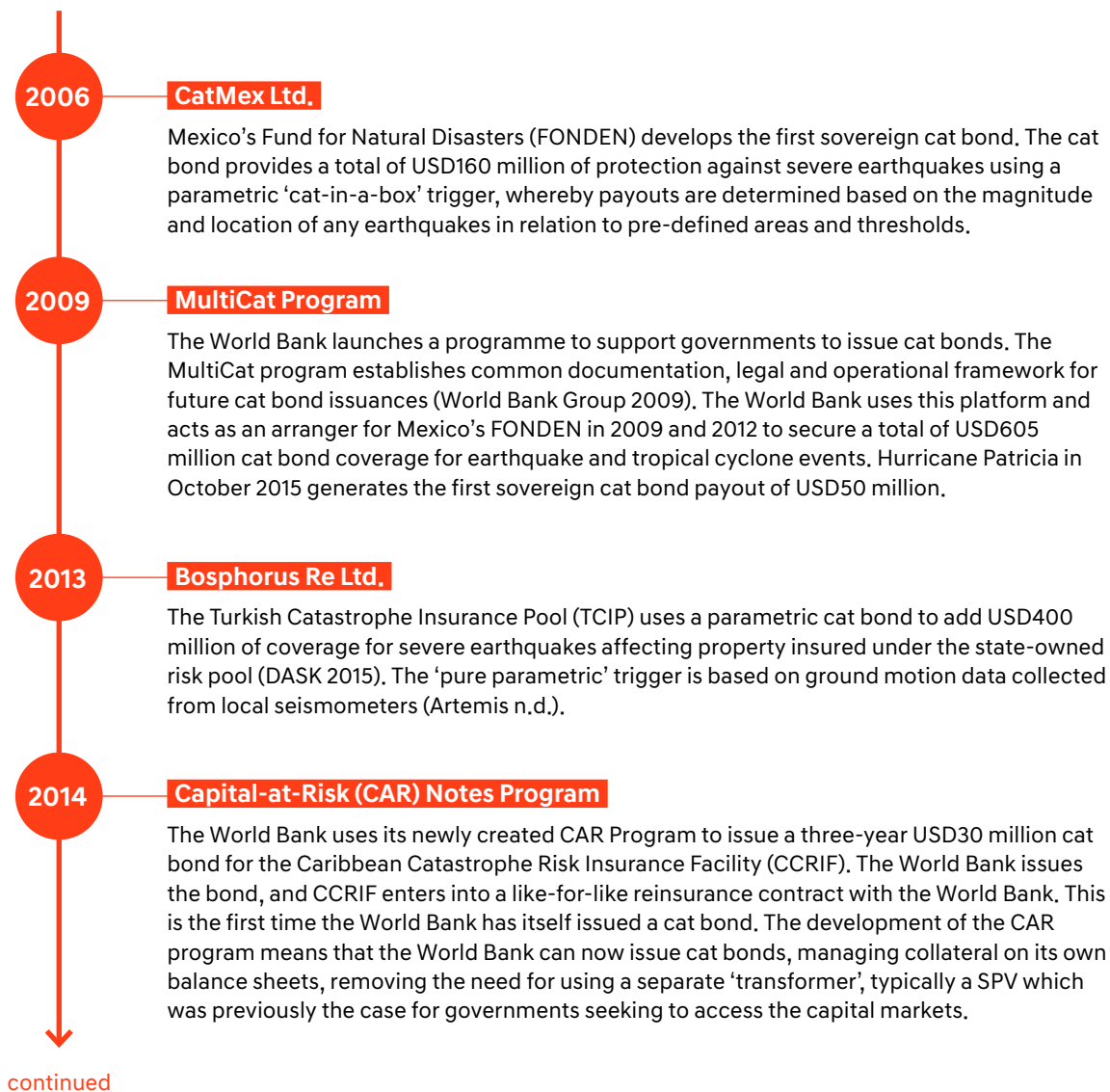
- **Trigger type:** sovereign cat bonds typically use parametric indices to approximate the financial risk to governments. Parametric indices use event information provided by a third party (reporting agent), which is processed by a calculation agent according to pre-defined calculation processes. This post-event process determines the size of payouts.
- **Risk type:** sovereign cat bonds have been developed to provide financial protection against hazards such as tropical cyclone wind and excess rainfall, earthquake and pandemic risk.²⁶

²⁶ Catastrophe bonds have also been structured to provide financial protection for risks including terrorism, cyber risk, and a wide range of natural hazards. However, these are not the focus of this discussion.

- **Issuance structure:** a typical cat bond structure centres around a special purpose vehicle (SPV), which is a legal entity that manages the flow of funds between the sponsor and investors. More recent World Bank-issued sovereign cat bonds do not use an SPV, but instead the World Bank acts as a financial intermediary, managing the investor's funds

and the flow of premium payments and payouts between governments and investors on its own balance sheet. Governments enter into a risk transfer agreement directly with the World Bank. This financial arrangement means sovereign bonds can be issued using the credit rating of the World Bank.

FIGURE 4.1: TIMELINE OF NOTABLE SOVEREIGN CATASTROPHE BONDS ISSUED SINCE 2006



2017

Pandemic Emergency Financing Facility (PEF)

The World Bank establishes a new pandemic financing facility following the 2014-2016 West African Ebola epidemic (Kim 2015). The PEF consists of a reserve fund ('cash window') and an insurance component ('insurance window'), which comprises a combination of USD105 million of catastrophe swaps and a USD320 million parametric cat bond (World Bank 2017). The cat bond triggered in April 2020 in response to the covid-19 pandemic, resulting in a USD195 million payout from the insurance window, including USD132.5 million from the cat bond.

2018

Pacific Alliance

The 'Pacific Alliance' is the first multi-country sovereign cat bond transaction (comprising five simultaneous cat bond issuances), which provides a total of USD1.36 billion coverage against earthquakes in Mexico, Colombia, Chile, and Peru (World Bank Group 2018). This is the largest cat bond transaction by the World Bank, and the second largest cat bond issuance ever at that time (Artemis 2018). This trigger structure is an evolution of the simpler zone-based trigger that was used in the original CatMex and MultiCat Mexico policies. The parametric trigger is based on a 'cat-in-a-grid' structure that was first used by Mexico in 2017 (World Bank Group 2017).

2019

Philippines

The World Bank issues two cat bonds which provide Republic of the Philippines with protection for earthquake and typhoon events. The cat bond uses a modelled loss trigger — this means that observed event parameters are processed using a catastrophe model to produce an estimate of the financial impact for a given event. The trigger for typhoon combines estimates of impacts for both wind and precipitation. This is the first time that precipitation has explicitly been incorporated into a sovereign cat bond trigger. There are multiple typhoon events during the term of the bond, which resulted in a single USD52.5 million payout due to wind impacts from Super Typhoon Rai (Odette) in 2022 (Evans 2022).

2021

Jamaica

The World Bank issues a cat bond that provides Jamaica with USD185 million of protection for tropical cyclones. This is the first Caribbean government and small island state to independently issue a cat bond. The premiums for the cat bond are subsidised by USAID, along with the UK and Germany via the Global Risk Financing Facility (GRiF). Fitch Ratings agency highlights that the cat bond "*strengthens the country's natural disaster risk-mitigation strategy*" (Fitch Ratings 2021).

2023

Chile

Following the expiry of Chile's earthquake cover under the Pacific Alliance cat bond, the World Bank issues a USD350 million cat bond. The cat bond is issued alongside USD280 million of catastrophe swaps, to provide a total of USD630 million of parametric earthquake protection. The Minister of Finance for Chile says the cat bond "*...reinforces our commitment to fiscal responsibility, which has been highlighted by different local and international agents.*" (World Bank Group 2023a)

Analysis of premium costs and payouts of World Bank-issued sovereign catastrophe bonds

A total of USD3.3 billion of financial protection has been issued by the World Bank through the Capital-at-Risk Notes programme, across 18 cat bonds issued since 2017, providing approximately 50 policy years of protection. Key information for these 18 cat bond policies issued under the IBRD since 2017 is provided in Figure 4.1. Information about the premium costs, risk metrics, and payouts for these cat bonds has been collated from multiple sources. This information allows for a high-level analysis of the total estimated costs and the total payouts. Currently, six cat bonds are yet to expire, so this analysis provides a snapshot view of total premium costs and total payouts as of September 2023.

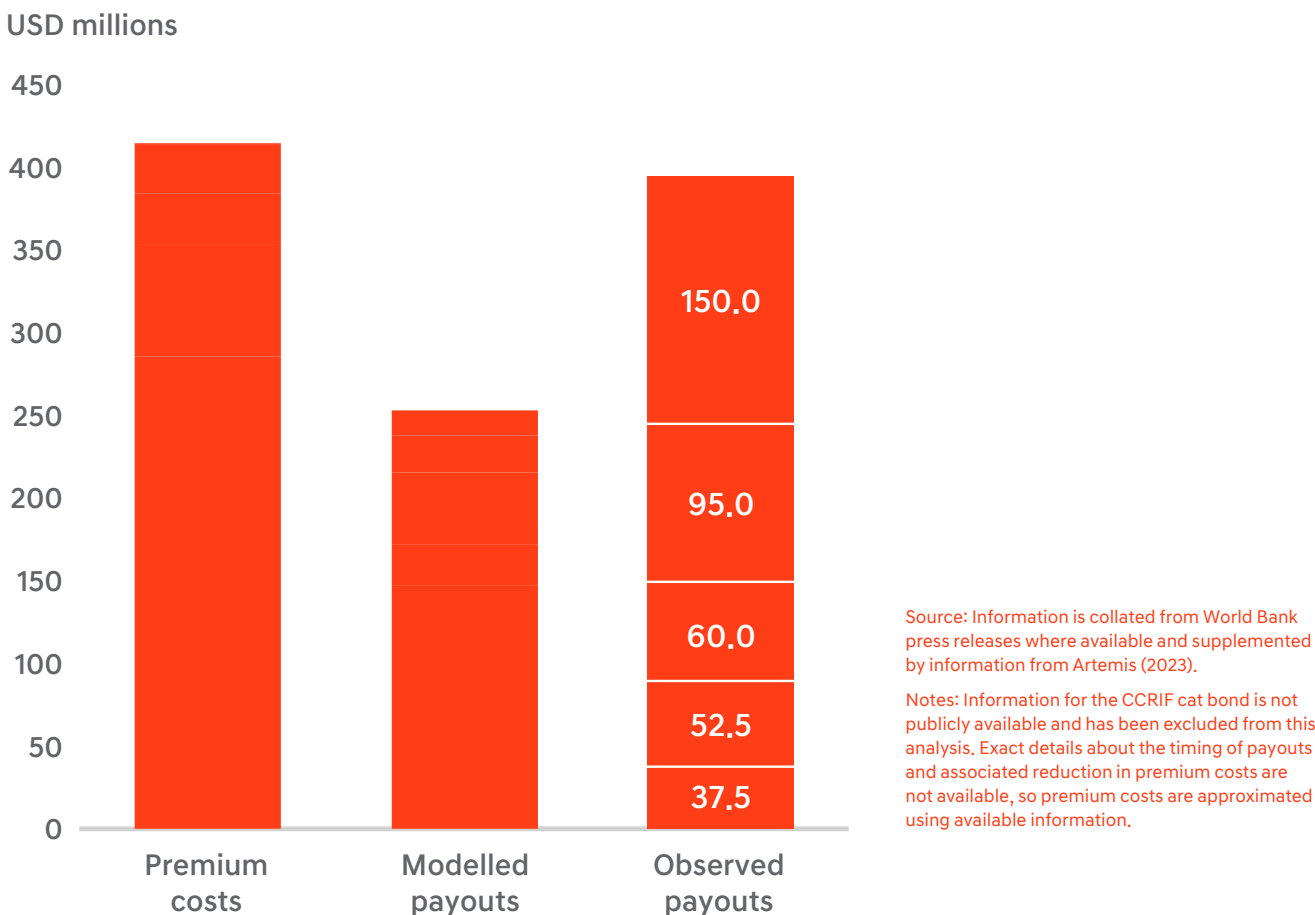
The total estimated costs relating to the risk margin (not including other transaction costs) is USD415 million. There have been five payouts so far, totalling USD395 million. This produces a premium to payout ratio of approximately 1.05,

which implies that USD1 of payouts have been made for every USD1.05 spent on cat bond premiums.

When cat bonds are issued, investors are provided a range of detailed risk information, which provides a modelled view of the likelihood of the bond making a payout. These risk metrics include a modelled estimate of the average expected payout amount (the 'expected loss' risk metric). Together with other factors, the expected loss metric is used to inform the risk margin (premium costs) charged for each bond. The total modelled payouts for these bonds are of the order of USD253 million, which is 36% lower than the actual payouts that have been made so far.²⁷ These metrics indicate that, on average, the risk models are providing reasonable estimates of risk, and that the premium charged is not substantially higher than the total payouts from the cat bonds. If these three metrics were substantially different, it could indicate that the risk is being mis-priced.

²⁷ However, note that the total payout amount relates to only five individual payouts - this observed payout total could be significantly higher or lower depending on what triggering events occur in the coverage term.

FIGURE 4.2: PREMIUM COSTS, MODELLED PAYOUTS AND OBSERVED PAYOUTS FOR CATASTROPHE BOND POLICIES ISSUED UNDER THE IBRD CAPITAL-AT-RISK NOTES PROGRAMME SINCE 2017

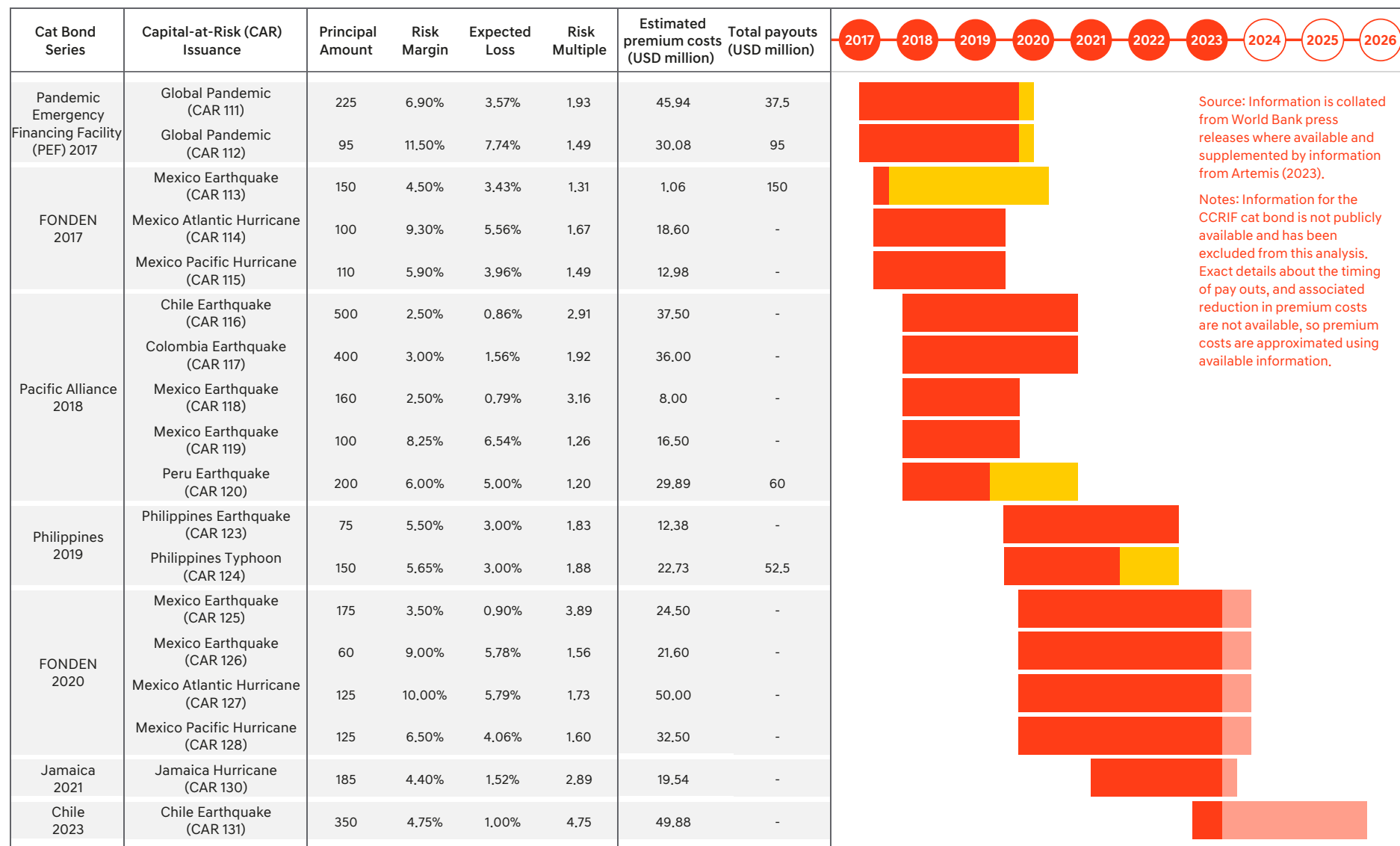


Collectively, the modelled payouts (expected loss), observed payouts, and premium payments in Figure 4.2 provide a view of the performance of these cat bonds. This snapshot view indicates that on average, the premiums charged for these cat bonds are not substantially higher than the total payouts.

Cat bonds are used to provide financial protection for more extreme, lower-frequency events – the modelled annual attachment probabilities of cat bonds in the analysis range from 1.09% to 9.44%. The risk metrics provide an estimated view of risk, and across the 50 policy years, the actual payouts are expected to be different to what was predicted by the models. In other words, the payouts from

these cat bonds could have been significantly higher or lower than what was observed. Therefore, the measurement of total payouts should be treated as one of many possible outcomes. However, these metrics do provide some indication that total payouts are broadly in line with the modelled estimates, and that the premiums being paid to transfer risk to the capital markets are higher but not significantly different to the payouts being made to crisis-affected countries. This outcome is in line with expectation for this type of risk-financing instrument, since the premiums charged for risk transfer are a multiple.

FIGURE 4.3: KEY METRICS FOR 18 CATASTROPHE BOND POLICIES ISSUED UNDER THE IBRD CAPITAL-AT-RISK NOTES PROGRAMME SINCE 2017



Source: Information is collated from World Bank press releases where available and supplemented by information from Artemis (2023).

Notes: Information for the CCRIF cat bond is not publicly available and has been excluded from this analysis. Exact details about the timing of pay outs, and associated reduction in premium costs are not available, so premium costs are approximated using available information.

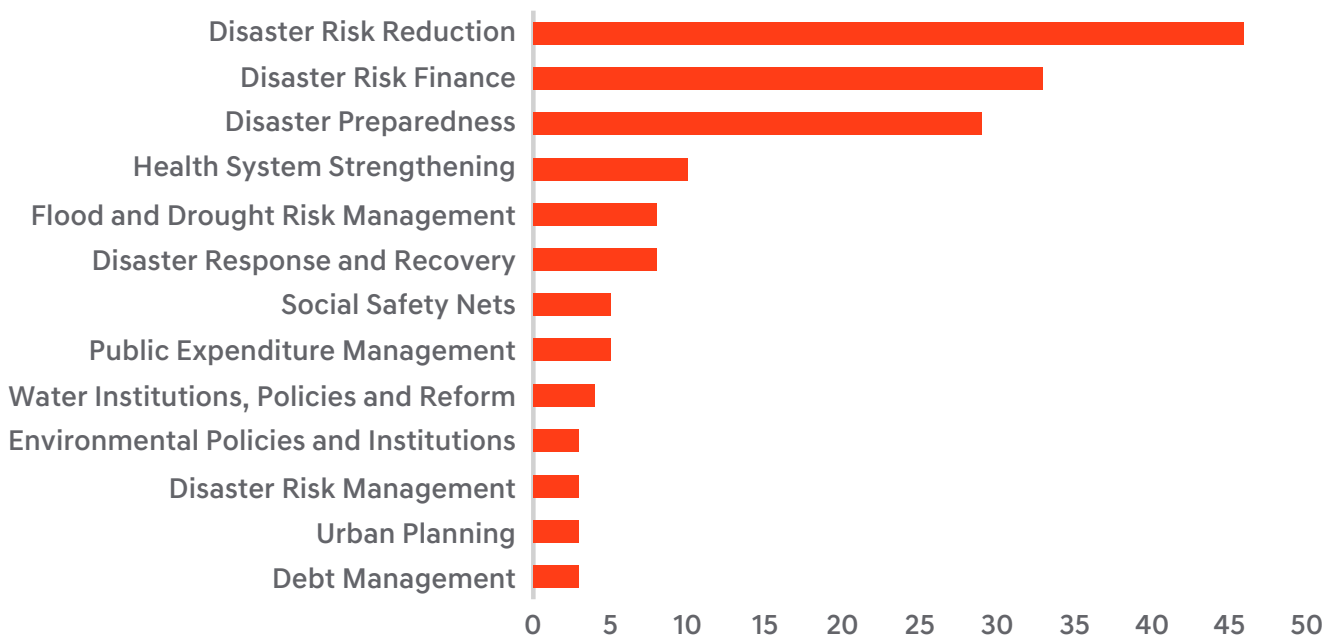
■ Full coverage ■ Reduced coverage ■ Future coverage

4.2 WORLD BANK CATASTROPHE DEFERRED DRAWDOWN OPTIONS

As seen in chapters 2 and 3, contingent credit from MDBs represent a major part of pre-arranged financing, with the World Bank currently the largest provider. Catastrophe Deferred Drawdown Options (Cat DDOs) from the World Bank link pre-identified triggers for natural hazards and health emergencies to immediate funding to recipient countries. It is typically a declaration of emergency by the government that allows the country to draw down the funding. The International Bank for Reconstruction and Development (IBRD) first introduced this instrument for its borrowing countries and approved the first Cat DDO in 2008, to Costa Rica. It has since become available to International Development Association (IDA)-eligible countries, of which Kenya was the first to access it in 2018.

Cat DDOs fall within the lending category of Development Policy Financing. This provides rapid access to unearmarked general budget financing, and requires an agreed set of conditions, described as ‘prior actions’, which are “policy and institutional actions deemed critical to achieving the objectives of a program supported by the development policy operation” (World Bank Group 2023b). In the case of Cat DDOs, the required policy framework and prior actions are typically focused on strengthening disaster risk management. On average, there are five prior actions for each approved Cat DDO, which focus on these specific themes (Figure 4.4).

FIGURE 4.4: NUMBER OF WORLD BANK CAT DDO PRIOR ACTIONS PER THEME (IF MORE THAN 2)



Source: Centre for Disaster Protection, based on data from the World Bank Group (2023c).

By August 2023²⁸ there had been 41 approved Cat DDOs, of which seven were active and had not been triggered (Table 4.1). When a country has drawn down the full amount, it can get a new Cat

DDO approved. The Philippines and Colombia are the only countries that currently have a third Cat DDO and have received a large amount of the total payouts over the years (Figure 4.5).^{29,30}

TABLE 4.1: ACTIVE WORLD BANK CAT DDOS WITHOUT DISBURSEMENTS

Country	Project name	Cat DDO amount (USD millions)	Approval date
Cabo Verde	Cabo Verde: Second Resilient and Equitable Recovery DPF with a Cat DDO	10	17/11/2022
Costa Rica	Second Costa Rica Disaster Risk Management Development Policy Loan with a CAT DDO	160	23/03/2023
Dominican Republic	Dominican Republic Second DRM Development Policy Loan with a Catastrophe Deferred Drawdown Option	230	02/12/2022
Grenada	Disaster Risk Management Development Policy Credit with a Catastrophe Deferred Drawdown Option	20	21/01/2020
Honduras	Honduras Second DRM Development Policy Credit with Deferred Drawdown Option (Cat DDO)	110	16/06/2022
Panama	Second Panama Disaster Risk Management Development Policy Loan with a CAT DDO	100	14/03/2022
Tuvalu	Tuvalu Second Resilience Development Policy Operation with a Catastrophe-Deferred Drawdown Option	10	08/12/2021

Source: Centre for Disaster Protection, based on data from the World Bank Group (2023d).

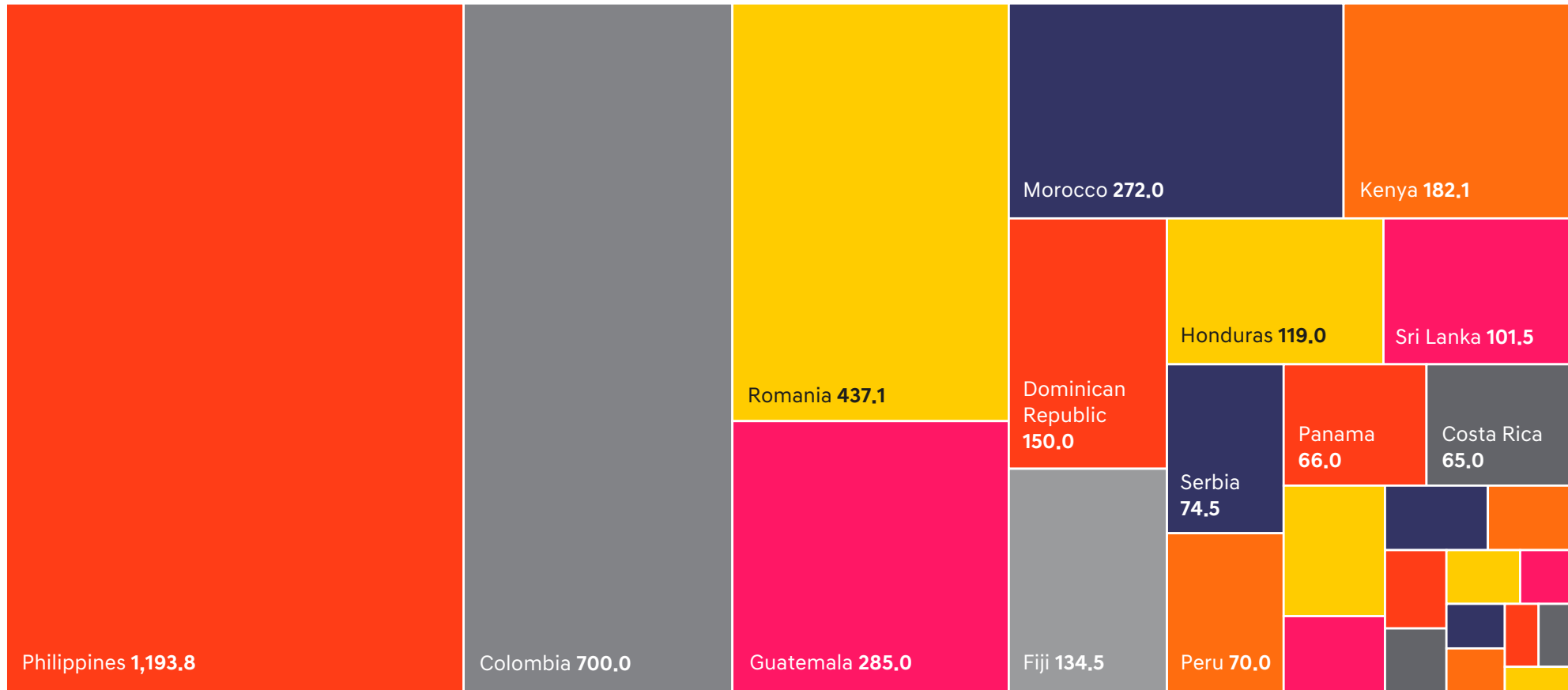
28 Please note that the content of this sub-chapter is based on data and analysis available up to August 2023.

29 The Philippines' third Cat DDO is part of the project called 'Fourth Disaster Risk Management Development Policy Loan with a Catastrophe-Deferred Drawdown Option'. This is because the third in a series of Disaster Risk Management Development Policy Loans for the Philippines, approved in 2020, did not include a Cat DDO: <https://projects.worldbank.org/en/projects-operations/project-detail/P171440>.

30 Romania and the Seychelles have Cat DDOs but are not ODA eligible, so these amounts are not reflected in the analysis of OECD DAC CRS data in Chapter 2.

FIGURE 4.5: TOTAL WORLD BANK CAT DDO PAYOUTS BY COUNTRY 2008–2023

USD millions

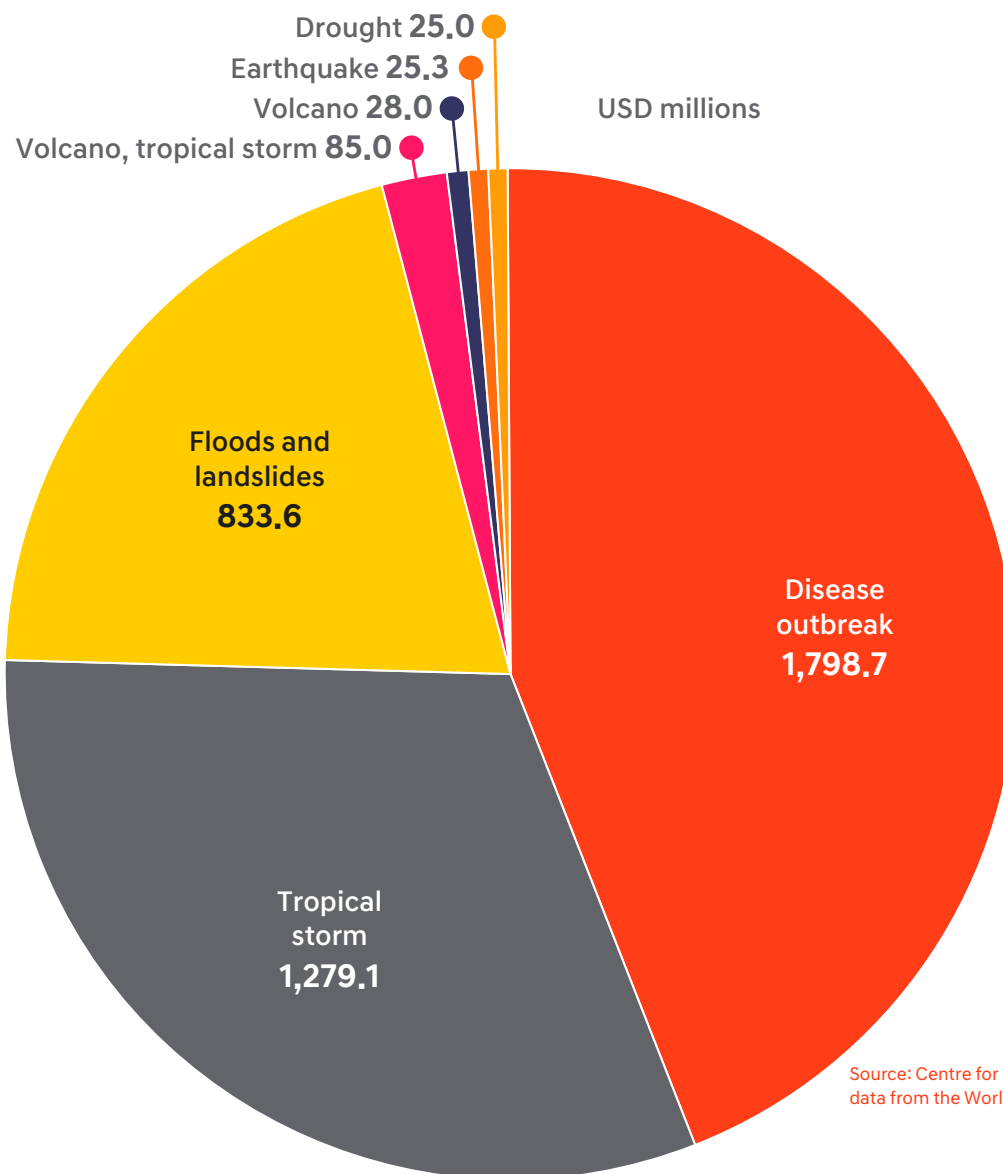


Source: Centre for Disaster Protection, based on data from the World Bank Group (2023d).

Figure 4.6 illustrates the impact of the covid-19 crisis on Cat DDO payouts. USD1.8 billion in payouts (44% of the total payouts between 2009 and 2023) were made for disease outbreaks, of which USD3.5 million was for a measles outbreak in Samoa in 2019, with the rest triggered for

covid-19 responses in 14 additional countries. Cat DDOs also disbursed USD1.3 billion (31.4%) between 2009 and 2023 for tropical storm responses, and USD834 million (20.5%) for flood and landslide responses. Slow-onset events, such as droughts, received just 0.6% of the total payouts.

FIGURE 4.6: TOTAL WORLD BANK CAT DDO PAYOUTS BY EVENT TYPE 2009–2023

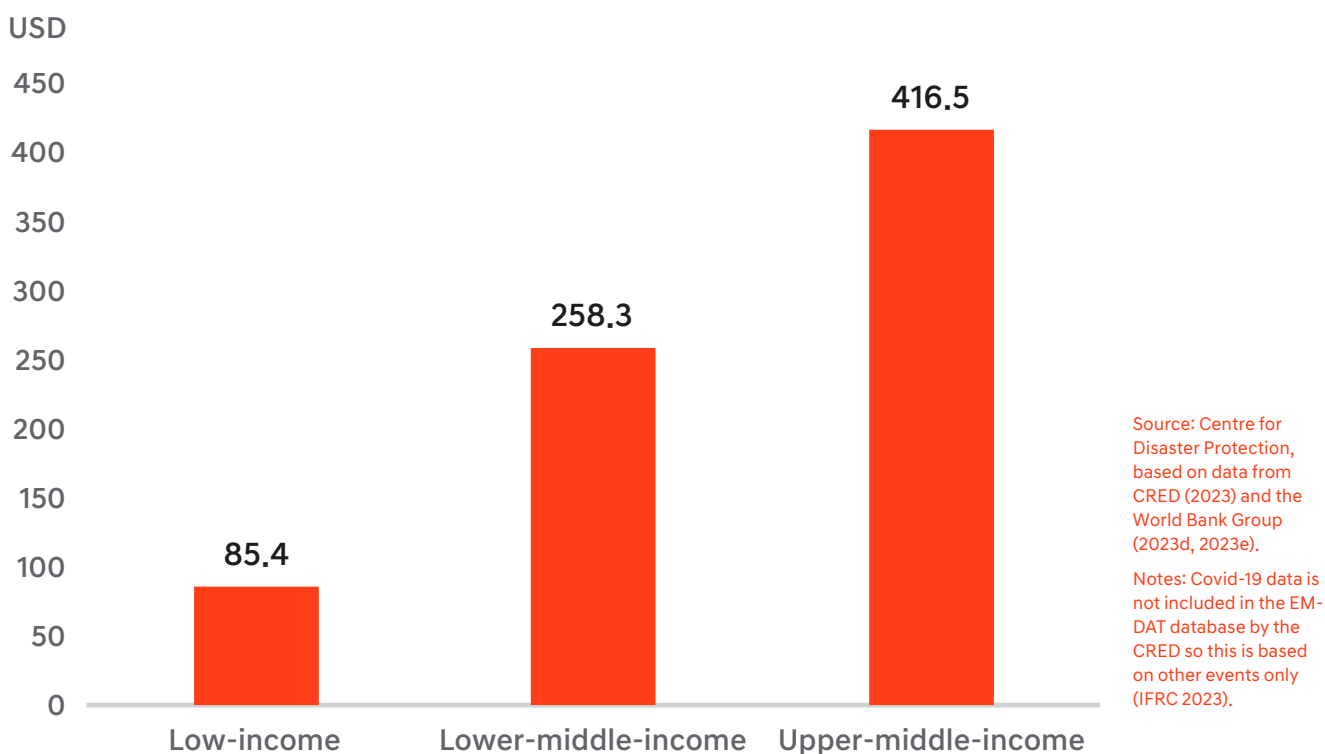


Source: Centre for Disaster Protection, based on data from the World Bank Group (2023d).

Cat DDOs have the potential to pay out very quickly. When flooding and landslides affected Madagascar in January 2020, for example, the government requested the activation of the Cat DDO after declaring an emergency. The World Bank reported that it disbursed the requested amount of USD15 million within 24 hours (Matera 2020).

The size of individual Cat DDOs ranges from USD6 million up to USD500 million (which is the upper country limit for IBRD countries) (World Bank Treasury 2021). This largely depends on the country's GDP. These discrepancies in how much financing countries can access have implications for the median payout received per affected person. For low-income countries this is USD85.4, compared to USD258.3 for LMICs and USD416.5 for UMICs (Figure 4.7).

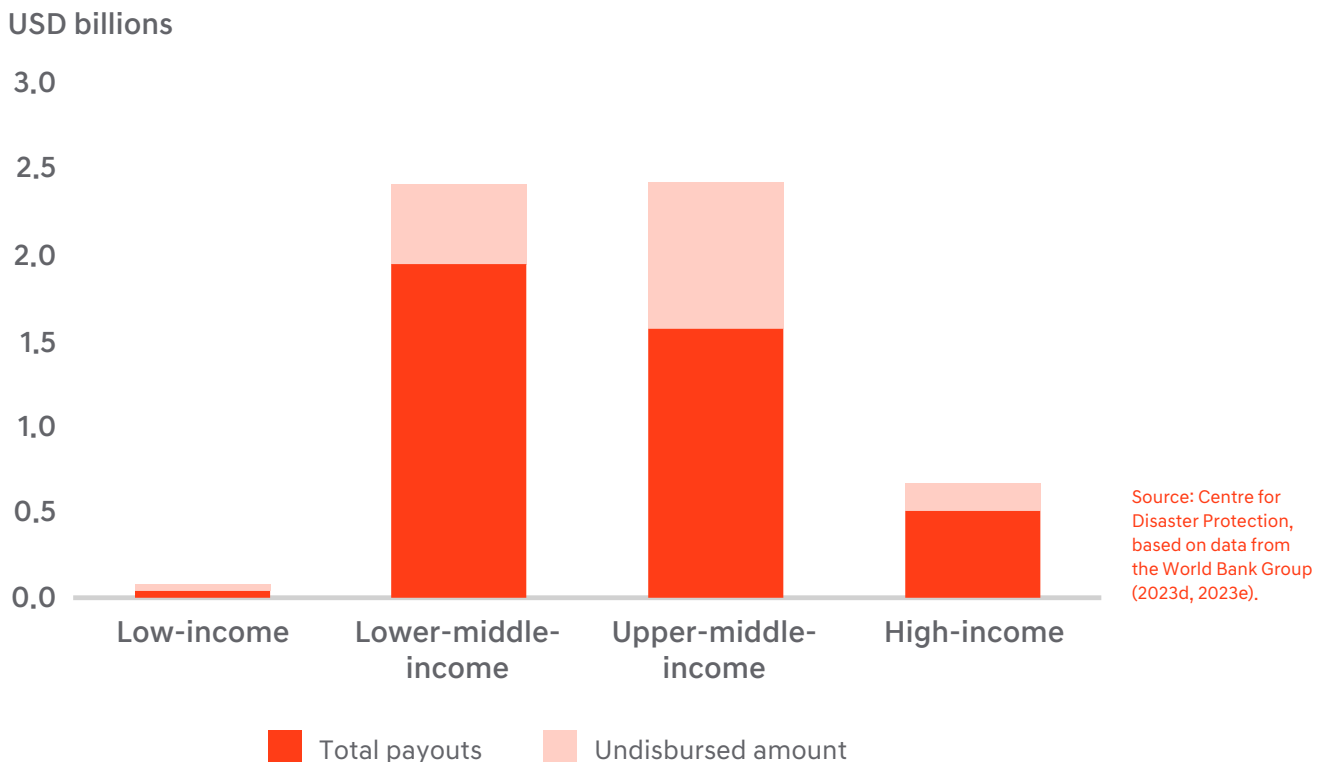
FIGURE 4.7: MEDIAN WORLD BANK CAT DDO PAYOUT AMOUNT PER AFFECTED PERSON BY INCOME GROUP



IDA countries are only required to cover part of the total Cat DDO value with their fixed country envelope for projects. The additional amount comes from other IDA resources, reducing the potential trade-off whereby planning for disasters displaces financing for priority development investments. Nevertheless, the uptake of Cat DDOs by low-income countries is still a challenge.

So far, Malawi and Madagascar are the only low-income countries to make use of Cat DDOs. Since the current IDA20 replenishment cycle, IDA Cat DDOs have become less expensive for countries (IDA country envelopes now need to cover only 25% instead of 50%), which could further increase the accessibility of the instrument (World Bank Group 2022).

FIGURE 4.8: TOTAL WORLD BANK CAT DDO AMOUNTS APPROVED AND PAID OUT



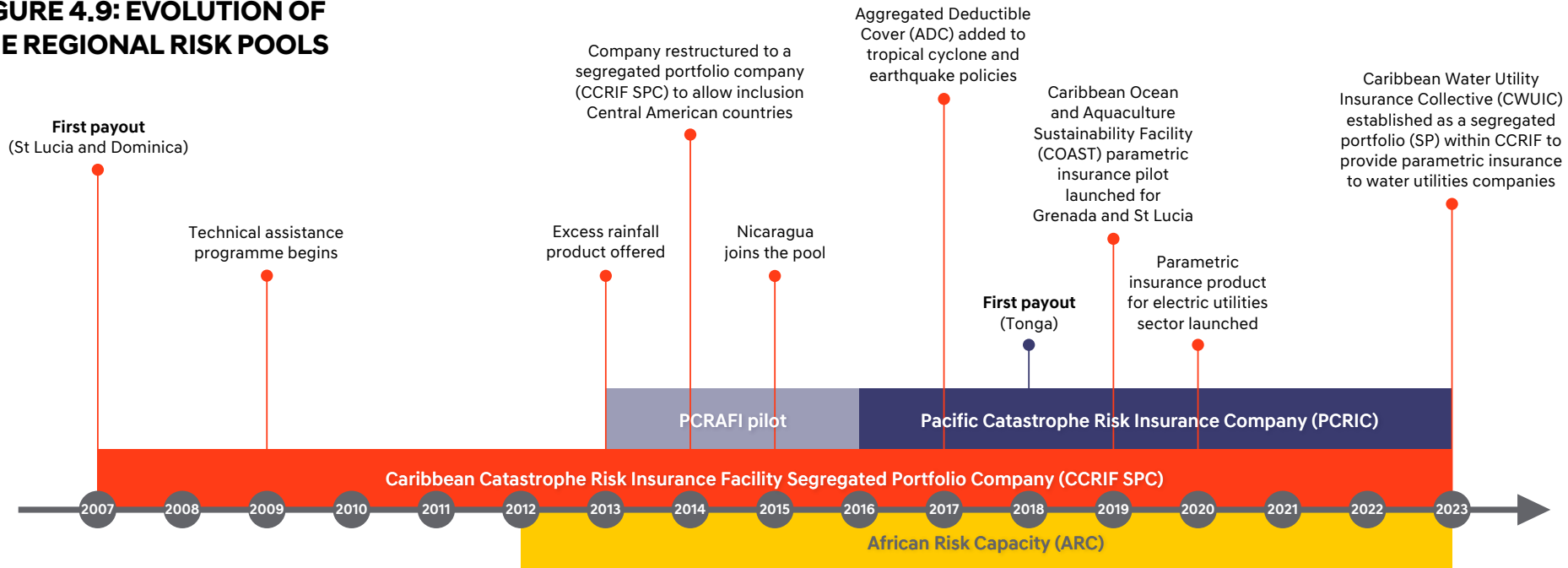
4.3 REGIONAL RISK POOLS

The initial proposal to create an international development financing-supported regional risk pool to meet the costs of responding to disasters was reportedly devised on the back of a napkin in a restaurant in Kingston, Jamaica in 2005 (Ghesquiere and Mahul 2021). Parametric insurance was in its infancy and had not yet been tested for sovereign products. The initial proposal was to develop novel parametric insurance for governments in the Caribbean who would pool and thereby diversify their risks, enabling them to access international insurance markets at cheaper rates (ibid.). Caribbean Community (CARICOM) countries, in partnership with the World Bank and other development partners, went on to develop the first regional risk pool for Caribbean countries.

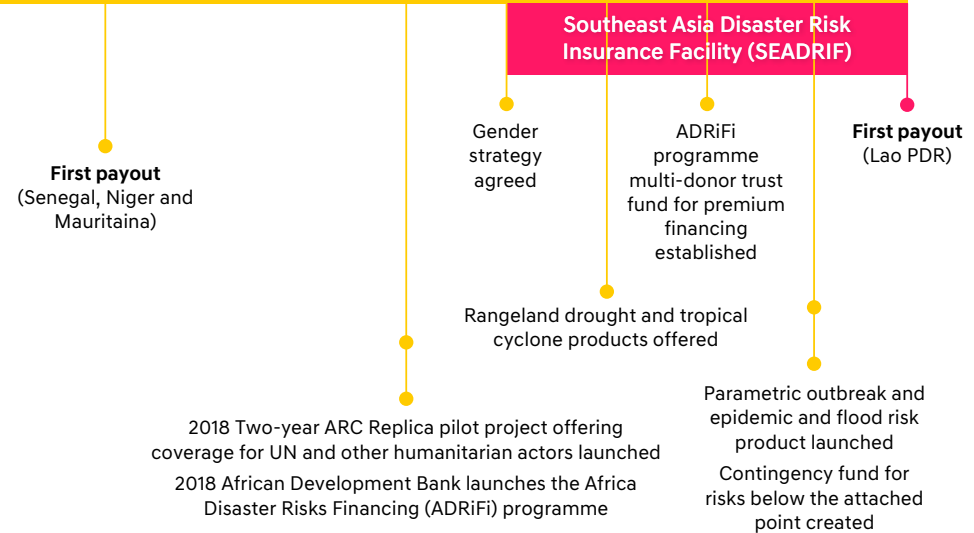
The regional risk pool model has proved popular and has been adopted and adapted elsewhere. Seventeen years after the idea was conceived, there are four regional risk pools – the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC), the Pacific Catastrophe Risk Insurance Company (PCRIC), the African Risk Capacity (ARC), and the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) which together provided USD1.3 billion in parametric insurance coverage in 2021/22.

The early spirit of experimentation and innovation has carried through into the piloting and maturing of the risk pools and they have continued to innovate and adapt to challenges encountered and client demand, developing an array of new products and tools.

FIGURE 4.9: EVOLUTION OF THE REGIONAL RISK POOLS



	Total payouts	Total coverage
CCRIF SPC	USD262m	USD1,115m (2021-22)
ARC	USD125m	USD127.8m (2022-23)
PCRIC	USD8m	USD20.6m (2022)
SEADRIF	USD1.5m	N/A



CCRIF SPC initially offered parametric insurance coverage for tropical cyclones and earthquakes. In 2013, CCRIF SPC added excess rainfall coverage and developed products for non-sovereign and private sector clients, for the fisheries sector, electric and most recently water utilities companies. In 2014, CCRIF restructured to a segregated portfolio company to allow countries in other regions to join and sectoral products to be developed. In 2017, CCRIF SPC introduced Aggregated Deductible Cover (ADC) to its tropical cyclone and earthquake policies, enabling payouts in circumstances where modelled losses do not meet the agreed threshold, but where losses are nevertheless significant.³¹ The largest ADC payout to date was USD40 million to Haiti, following a 7.0 magnitude earthquake in 2021.

Since its launch in 2012, ARC has expanded its initial drought coverage product offer to include pastoral rangeland and tropical cyclone products in 2020; and outbreak and epidemics, and flood risk products in 2022. In 2018, ARC developed an innovative ‘replica’ product with humanitarian

partners that allows them to purchase insurance alongside governments. The African Development Bank launched the Africa Disaster Risks Financing (ADRFi) programme, which in 2021 added a multi-donor trust fund to receive donor contributions for premium financing support to ARC member countries. In 2022, ARC piloted a new microinsurance product for rice farmers in Côte d’Ivoire; issued a new flood insurance product for the State of Lagos in Nigeria; started developing a new anticipatory insurance product with United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), which ARC expects to test in Malawi and Zambia; and created a contingency fund to respond to risks below agreed insurance attachment points (ARC 2023a).

Each of the risk pools has received substantial donor support.³² Initially, support focused primarily on capital support and funding for set-up costs. However, donor support has also increasingly been provided to participating countries in the form of premium support (see Box 4.1).

BOX 4.1: PREMIUM SUPPORT

Premium support is international funding to pay for insurance premiums. It is paid to or on behalf of vulnerable countries or humanitarian actors to buy insurance coverage.

Premium support has been provided to incentivise countries to take out insurance and increase coverage. It also offers an opportunity for international donors to create direct protection for vulnerable people and to close urgent protection gaps as objectives in themselves. Depending on which of these two goals are in focus, the premium support terms and offers vary. Premium support to incentivise a country to take out insurance is typically given for a limited time with the clear expectation of a phase-out of the premium support.

Premium support to create protection has been relatively ad hoc to date and, notably, in response to the covid-19 pandemic. International premium support to create protection has also been given to humanitarian actors alongside vulnerable country government insurance coverage or in contexts of fragile states.

31 And where modelled losses are between 50% and 99% of the attachment point.

32 ARC, for example, had received around USD250 million in donor support up to January 2022, comprising around USD100 million for ARC Agency, USD100 million as capital and USD46 million in premium subsidies (OPM 2022).

Growing demand and uptake of policies has proved challenging for PCRIC, SEADRIF and ARC. For example, fewer countries joined ARC in the initial years than anticipated, and countries also dropped out both because of political changes in-country and due to unmet or misaligned expectations around payouts (Martinez-Diaz et al. 2019, OPM 2022).

Affordability is a barrier to uptake and sustained coverage, particularly among ARC member countries, many of whom are classified as low-income (Genesis Analytics 2022, OPM 2022). In recognition of these challenges, donor attitudes towards providing premium support have altered dramatically from a relatively recent ‘no-go’ to ‘must have’ position (Bertram and Chowdhary 2023).

Growth in sales of ARC products has become increasingly funded via premium support to participating governments, and through donor financed ARC Replica policies (OPM 2022). In the 2021–22 ARC risk pool for example, 73% of the USD30.4 million in premium income was paid for by donor premium support (OPM 2022).

4.4 ANTICIPATORY ACTION

Anticipatory action is a programmatic approach that originated within and is currently delivered by humanitarian organisations. Anticipatory action comprises actions taken before the peak impact of a shock to prevent or reduce potential disaster impacts (IFRC 2022). The objective of anticipatory action is to reduce the potential impacts of forecastable hazards (Anticipation Hub 2023). Conditions or triggers for the release of funds and initiation of actions are typically agreed against hazard forecasts as part of a ‘framework’ or response plan. Currently, funding for anticipatory action is largely grant funding held in organisational pooled funds or as part of a budget line within a programme. As such, anticipatory action is a programmatic approach rather than a

Approaches to premium support, however, are unpredictable, ad hoc, and optimistically short in duration (Bertram and Chowdhary 2023, Genesis Analytics 2022). The African Development Bank (AfDB)’s ADRiFi programme initially conceived of providing financial support to ARC policy uptake by allowing members to use concessional loan financing allocations from the African Development Fund to purchase coverage. Responding to continued low uptake in the first three years of ADRiFi, supplementary grant-financed premium support was provided using donor grant contributions to a dedicated trust fund. Germany’s Federal Ministry for Economic Cooperation and Development of the German Government (BMZ), for example, provided EUR19.5 million in one-off premium payments to African governments and humanitarian actors during the covid-19 crisis (KfW 2020). In 2021, the German government announced the creation of a new EUR18 million premium support facility (ARC, AU and KfW 2021).

financing instrument. However, it contains the key elements of PAF, including financing agreed in advance of a crisis, that is guaranteed to be released to a specific implementer when a pre-identified trigger condition is met.

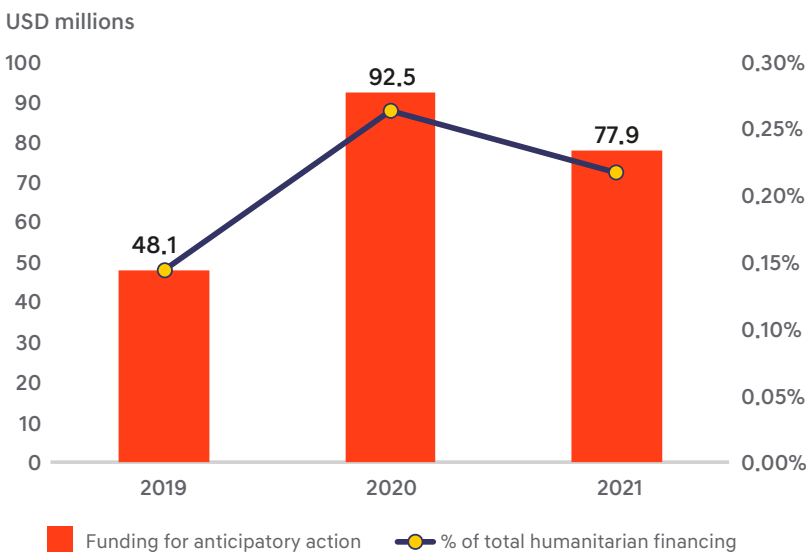
Funding for anticipatory action is a growing but nevertheless small share of humanitarian funding, representing just 0.2% of humanitarian funding reported to the OECD DAC in 2021 (see Figure 4.10).

Much of the funding for anticipatory action flows through five internal funding mechanisms managed by humanitarian organisations: UNOCHA’s Central Emergency Response Fund (CERF), International Federation of Red Cross

and Red Crescent Societies (IFRC)'s Disaster Response Emergency Fund (DREF), the START Fund's Anticipation Window, and the UN Food and Agriculture Organization (FAO)'s Special Fund for Emergency and Rehabilitation Activities (SFERA). Funding contributions to these internal funds may not be earmarked for anticipatory

action and are therefore not readily identifiable in the CRS data. The Centre's methodology applies a calculation to impute the SFERA and DREF amounts to only reflect what counts as pre-arranged finance, however it is likely that this does not capture full amounts and total volumes are likely to be higher (see Annex 3).

FIGURE 4.10: FUNDING FOR ANTICIPATORY ACTION AS A PROPORTION OF TOTAL HUMANITARIAN FINANCING 2019–2021



Source: Centre for Disaster Protection, based on data from OECD (2023).

In addition to the Centre's assessment of funding, Anticipation Hub regularly collects data from partner organisations on the coverage provided by anticipatory action frameworks and funds triggered or disbursed when pre-agreed conditions are met.³³ As a voluntary reporting exercise, it is likely that some existing anticipatory action frameworks are not captured.³⁴ Nevertheless, Anticipation Hub's data currently represents the most comprehensive assessment of funding for anticipatory action

available to meet the needs of at-risk people. Notably, volumes captured in the Anticipation Hub data are higher than those captured by the Centre's methodology in the DAC data.

In 2022, USD137.6 million was available within agreed anticipatory action frameworks to meet the needs of 7.6 million people. Of this total, in 2022, USD54 million was triggered or disbursed when activation thresholds were met (Anticipation Hub 2023).

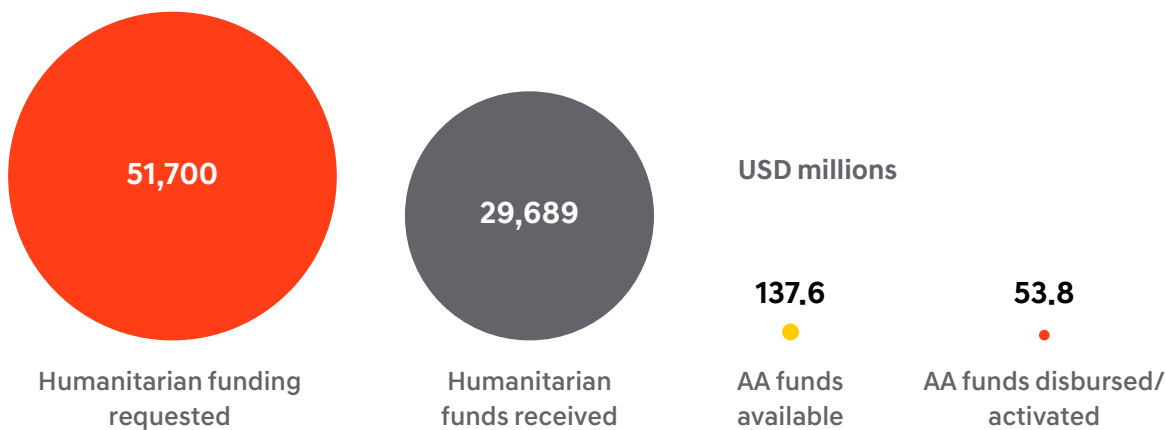
33 Note that some coverage of anticipatory action is also captured within Global Shield Secretariat data, there will therefore be some overlap between these two sources.

34 For example, World Food Programme (WFP) reported a total of USD2 million in payouts to Anticipation Hub in 2022. WFP's website, however, reports USD36.8 million "in prearranged financing rapidly disbursed to countries with Anticipatory Action Plans (AAPs) in case of a trigger activation in 2022". <https://www.wfp.org/anticipatory-actions>.

While anticipatory action has grown rapidly, Figure 4.11 shows that it still represents a very small proportion of overall humanitarian funding and an even smaller proportion of the total funding needed. In 2022, the almost USD138 million

available in anticipatory action frameworks was equivalent to just 0.3% of the total funds requested in UN coordinated appeals, and 0.5% of the funds received against those appeals.³⁵

FIGURE 4.11: ANTICIPATORY ACTION FUNDING COVERAGE AND DISBURSEMENTS AS A SHARE OF TOTAL HUMANITARIAN FUNDING REQUIREMENTS AND FUNDS RECEIVED IN 2022

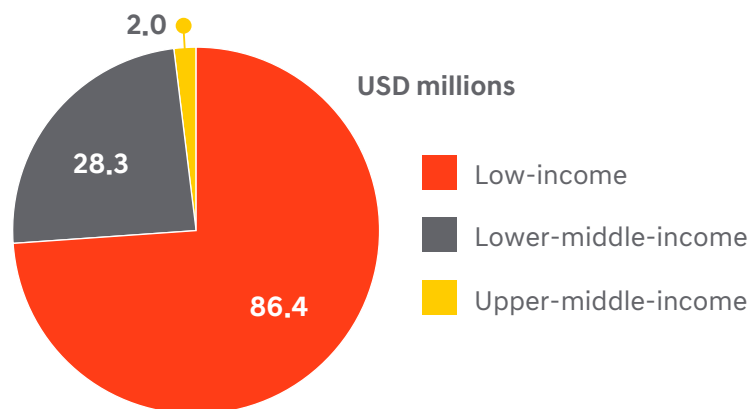


Source: Anticipation Hub (2023) and UNOCHA (2023).

In contrast with the overall pattern of PAF coverage, anticipatory action frameworks were concentrated in low-income (68.2%) and lower-

middle-income countries (30.2%) in 2022, with just 1.6% in upper-middle-income countries.

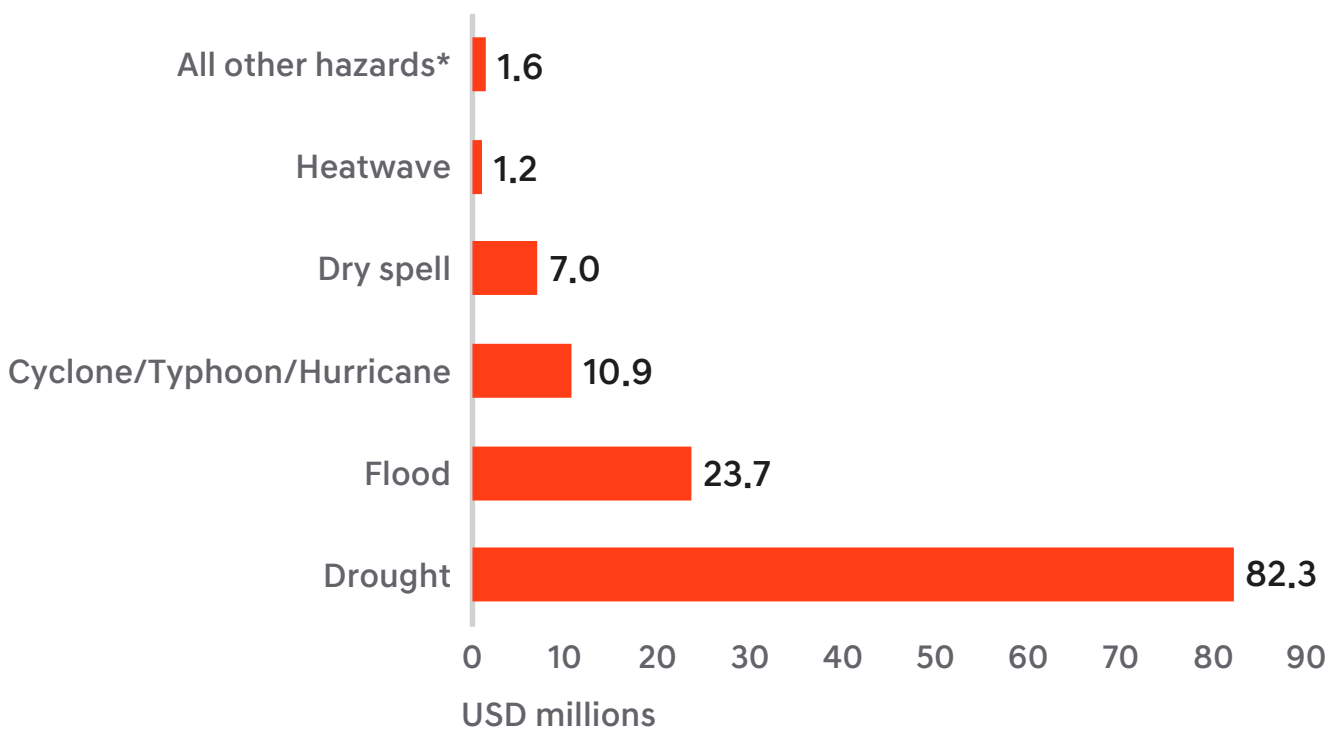
FIGURE 4.12: FUNDING AVAILABLE FOR ANTICIPATORY ACTIONS BY INCOME GROUP IN 2022



Source: Anticipation Hub (2023).

³⁵ Note that funds received within UN coordinated humanitarian appeals cannot be directly compared with, and are typically significantly higher than funds reported to the OECD DAC CRS. Reporting categories are not comparable across the two datasets — funds designated humanitarian in one might be designated development in the other, for example; Financial Tracking Service (FTS) data is voluntary and therefore not comprehensive; and the FTS data includes contributions from private sources and government donors that do not report to the OECD DAC.

FIGURE 4.13: FUNDING AVAILABLE FOR ANTICIPATORY ACTION BY HAZARD TYPE 2022



Source: Anticipation Hub (2023).

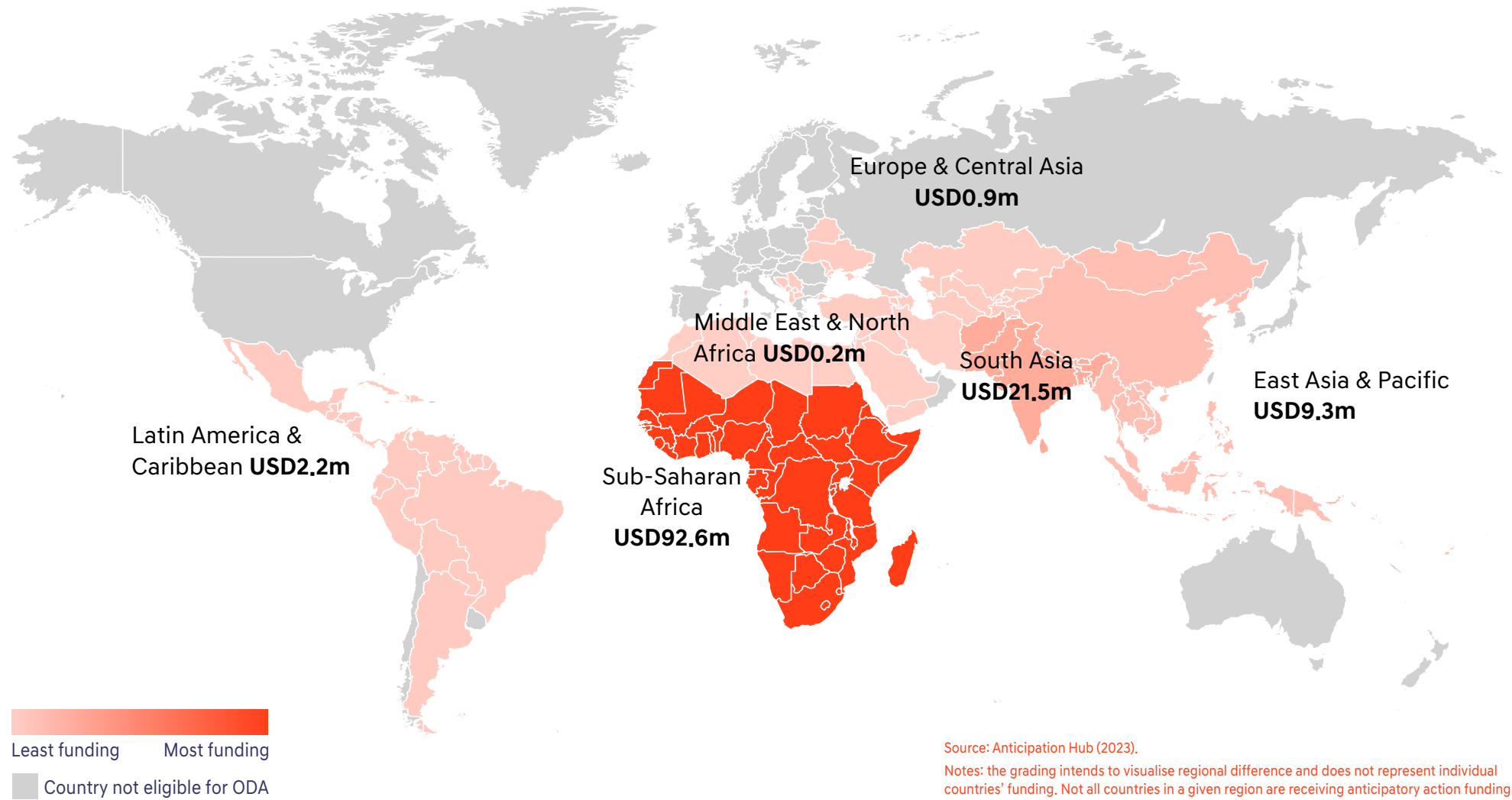
Notes: *The category 'all other hazards' includes cold waves, volcanic ash, disease outbreak, El Niño (extreme rainfall) and landslides.

To date, the largest volumes of anticipatory action coverage are for drought, which comprised 65% of all available funds disaggregated by hazard type in 2022.

Geographically, and consistent with the focus on drought risk, anticipatory action frameworks were strongly concentrated in sub-Saharan Africa (USD92.6 million, 73.1%), and in land-locked countries (68.7%). Very little funding available for

anticipatory action (0.1%) targeted small island developing states in 2022. The majority of funding available for anticipatory action is concentrated in fragile and conflict-affected settings (78.6%), consistent with the wider distribution of humanitarian operational capacity and humanitarian needs. The regional distribution of anticipatory action funding is visualised in Figure 4.14.

FIGURE 4.14: FUNDING AVAILABLE FOR ANTICIPATORY ACTION BY REGION IN 2022



5

SITUATING PRE-ARRANGED FINANCING IN THE WIDER GLOBAL CONTEXT

Forces shaping demand for pre-arranged financing are changing rapidly. The following section considers three major trends which providers of PAF will need to consider in adapting their offers to low- and middle-income countries. These include the ways in which a warming climate is driving a widening of the crisis protection gap, both by increasing the costs of

disasters and contributing to growing affordability challenges. At the same time, in the last two years, pre-arranged financing has gained widespread recognition as a potential tool to address climate change-induced losses and damages, bringing increased resources and political attention to international development-supported PAF.

5.1 PRE-ARRANGED FINANCING AND A WARMING CLIMATE

The impacts of disasters are on an upward trajectory. According to the UN's mid-term review of the Sendai Framework for Disaster Risk Reduction (2015–2030) the number of people affected by disasters per 100,000 people has increased from 1,147 in 2005–2014 to 2,066 in 2012–2021 (UNGA 2023). As the climate crisis unfolds, the consequences of climate change-induced disasters will become more frequent and severe (IPCC 2022). Notably, for finance ministries, climate risks could have wide-ranging impacts on public finances, contributing to higher public debt, reduced tax revenues, reallocation of funds away from development priorities, and incurring both known and unanticipated contingent liability costs (Dunz and Power 2021).

Many low-income countries do not effectively manage their climate-related liabilities due to

insufficient incentives, as well as weak public financial management capacity (Allan and Paterson 2019). Consequently, many low-income countries are highly vulnerable to budgetary disruption following disasters, which can have a detrimental impact on development objectives and macroeconomic stability, and potentially impact their ability to raise affordable financing.

Recent studies highlight the risk of climate-induced sovereign downgrades as early as 2030, which will increase borrowing costs (Agarwala et al. 2021, Klusak et al. 2023). In order to retain their credit standing and maintain investor confidence in general, governments may need to demonstrate that they are proactively taking steps to manage climate-related contingent liabilities and their associated fiscal impacts.

By protecting public finances against future

shocks, some types of pre-arranged financing can signal a government's strategic intent to adopt a more intentional, proactive approach to managing climate impacts. Cat bonds, for example, are viewed positively by rating agencies in sovereign credit rating assessments.³⁶ The Government of Chile's desire to signal that it is serious about long-term financial planning for potential disasters seems to be one of the motivations behind its recent decision to buy a large cat bond in a hard market (Meenan 2023).³⁷ However, risk transfer to capital markets is unlikely to be an affordable or cost-effective option for many low-income countries. Cat bonds

tend to provide significant coverage for very remote risk layers, and depending on the country and its risk profile, it may be better value and more politically sustainable to invest in less coverage for more frequent events. Fiscal sustainability remains an issue beyond climate change (as discussed below), but climate change will exacerbate these concerns. It is imperative that low- and vulnerable middle-income countries confront the challenges with appropriate support from their development partners. This will require addressing challenges with the affordability and attractiveness of pre-arranged financing in low-income countries in particular.

5.2 PRE-ARRANGED FINANCING AND HIGH PUBLIC DEBT BURDENS AND RISKS

Debt sustainability is a growing concern for many low- and middle-income countries, limiting their ability to respond to shocks. Since 2010, government debt ratios have been on an upward trend, with most countries experiencing a dramatic increase in their government debt to GDP ratios during the covid-19 pandemic (see Figure 5.1). While debt ratios have started to decline since 2020, they remain high and are expected to remain elevated for least-developed countries (LDCs) and LMICs in the face of weak

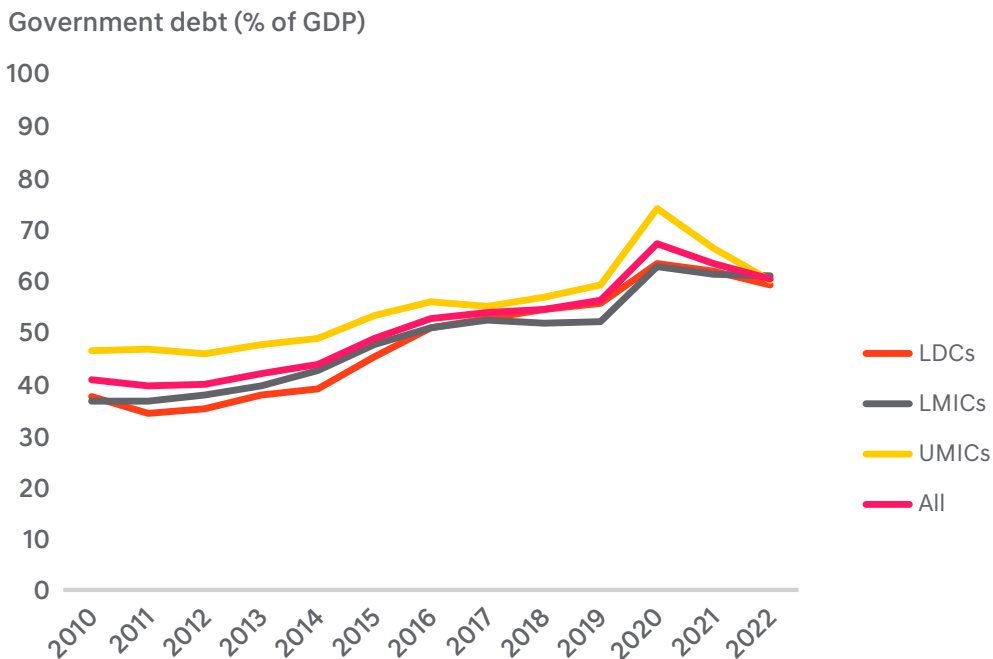
growth rates, high borrowing costs and large financing needs (UN DESA 2023). About 60% of countries that use the International Monetary Fund (IMF)/World Bank Debt Sustainability Framework³⁸ are assessed at high risk of debt distress or in debt distress, meaning a country is not able to repay its debts – twice the number in 2015 (see Table 5.1 for details on country status). This is cause for alarm given that existing debt architecture is generally unable to facilitate an orderly and timely resolution of debt crises.

36 Because they are issued through a Special Purpose Vehicle or intermediary, cat bonds do not count as debt stock of the sponsoring sovereign.

37 With a final risk premium of 4.75% and an expected loss of 1%, Chile pays USD4.75 in premiums for every USD1 they expect to receive in payouts. An analysis of historical World Bank cat bonds shows that the risk multiple is about 60% higher than the historical average for a bond with this risk profile – a sign that the market conditions have changed.

38 Based on the joint IMF-World Bank Debt Sustainability Framework (DSF) – a standardised framework for conducting public and external debt sustainability analysis (DSA) in low-income countries (LICs).

FIGURE 5.1: SURGE IN GOVERNMENT DEBT RATIOS SINCE 2010



Source: IMF (2023a).

TABLE 5.1: RISK OF DEBT DISTRESS RATING FOR THE POVERTY REDUCTION GROWTH TRUST (PRGT)³⁹ ELIGIBLE IMF MEMBER COUNTRIES AS OF 31 AUGUST 2023

Low (7)	Moderate (26)	High (26)	In debt distress (10)
Bangladesh, Cambodia, Honduras, Moldova, Myanmar, Nepal, Uzbekistan	Benin, Bhutan, Burkina Faso, Cabo Verde, Democratic Republic of Congo, Côte d'Ivoire, Guinea, Guyana, Kyrgyz Republic, Lesotho, Liberia, Madagascar, Mali, Mauritania, Nicaragua, Niger, Rwanda, Senegal, Solomon Islands, St. Lucia, Tanzania, Timor Leste, Togo, Uganda, Vanuatu, Republic of Yemen	Afghanistan, Burundi, Cameroon, Central African Republic, Chad, Comoros, Djibouti, Dominica, Ethiopia, The Gambia, Guinea-Bissau, Haiti, Kenya, Kiribati, Maldives, Marshall Islands, Micronesia, Mozambique, Papua New Guinea, Samoa, Sierra Leone, South Sudan, St. Vincent and the Grenadines, Tajikistan, Tonga, Tuvalu	Republic of Congo, Ghana, Grenada, Lao P.D.R., Malawi, São Tomé and Príncipe, Somalia, Sudan, Zambia, Zimbabwe

Source: IMF (2023b).

39 The PRGT is the IMF's main vehicle for providing concessional financing (currently at zero interest rates) to LICs.

Some pre-arranged financing instruments will add directly or indirectly to government fiscal burdens. However, when considering the costs and benefits to society, and comparing alternatives, there may be a strong case to use these instruments. For example, a disbursed contingent loan needs to be repaid by the borrowing country, but the concessional terms typically offered by multilateral development banks such as the World Bank,⁴⁰ coupled with the certainty and speed of disbursement, means these products may be more cost-effective compared to alternatives such as borrowing ex-post, relying on ad-hoc, unpredictable humanitarian assistance, or freeing up fiscal space at the expense of public spending on other critical areas. Notably, pre-arranged financing may also positively impact public finances in the long-term by facilitating a quicker and less expensive recovery than ex-post financing (Allan and Bayley 2023).

Fiscal consolidation pressures to reduce debt vulnerability are likely to hamper the use of pre-arranged financing to manage climate risks in both low- and middle-income countries. For example, there is growing evidence that high debt service burdens are already crowding out critical spending on public services and infrastructure (UNCTAD 2023). In combination with higher costs of reinsurance in current hardened market conditions, driving up the costs of insurance, pre-arranged financing is likely to be increasingly challenging for governments to prioritise. The provision of premium subsidies for insurance products could help to reduce these constraints to

uptake; however, premium support is currently typically provided with the expectation that countries will eventually take these payments onto their own balance sheets (IGP 2022, World Bank Group 2011). This expectation is becoming increasingly untenable (Bertram and Chowdhary 2023). Against this backdrop, governments face increasingly difficult prioritisation decisions, which is likely to adversely impact demand for PAF directly financed by governments.

Pre-arranged financing provided in a prudent and disciplined manner can promote cost-effective and efficient responses to climate shocks, but irresponsible financing can have harmful consequences for the recipient country. Against this backdrop of limited fiscal space and high debt burdens, providers of pre-arranged financing that is not purely grant-based have a responsibility to assess the recipient country's capacity to pay for the product, based on the best available information and following objective and technical rules on due diligence. Notably, when the financing adds to the country's debt burden, due consideration should be given to the country's debt sustainability indicators, with debt-creating instruments limited to countries with a public finance position deemed sufficiently sustainable. In addition, providers of pre-arranged financing should supply information to their sovereign customer, such as the costs, duration and size of any subsidies, and size of pay-outs, to assist the recipient country in making informed decisions based on the impact on their public finances and the well-being of citizens.

5.3 PRE-ARRANGED FINANCING AS A RESPONSE TO CLIMATE-INDUCED LOSSES AND DAMAGES

Over and above questions of how states should plan and prepare to pay for climate-related disasters, questions relating to 'historical responsibility', 'equity' and 'fairness' are gaining prominence in international climate negotiations on Loss and Damage. Many of the countries and communities bearing the brunt of impacts from

climate change have done the least to cause it, and typically lack the technical and financial capacity to address loss and damage. This has led to demands by developing countries that developed countries which have contributed the most to climate change should pay.

⁴⁰ Loans from the International Development Assistance window of the World Bank carry no or low interest charges with the terms determined with reference to recipient countries' risk of debt distress, the level of GNI per capita, and creditworthiness for IBRD borrowing.

BOX 5.1: WHAT IS CLIMATE-INDUCED LOSS AND DAMAGE?

Although there is no agreed definition, loss and damage typically refers to the negative impacts of human-induced climate change that could not be, or were not, avoided through mitigation or reduced through adaptation (Bakhtaoui et al. 2022, Bhandari et al. 2022, Franczak 2023, Mustapha 2022). Loss and damage can happen quickly from extreme weather events such as cyclones and wildfires, or slowly from slow(er)-onset processes such as sea-level rise or melting glaciers. They cover both economic impacts (those that can have a monetary value assigned to them, such as property damage); and non-economic impacts and intangible losses, such as loss of cultural heritage or ways of living (for which a monetary value generally is not readily available).

The term 'Loss and Damage' (capitalised) is commonly used in reference to international climate negotiations on the topic and its surrounding politics. It also refers to plans and policies focused on addressing loss and damage.

Addressing loss and damage is politically fraught. The provision and mobilisation of Loss and Damage finance has been a highly contentious and complex issue in the UN climate negotiations since it was introduced more than 30 years ago, partly because developed countries are wary about becoming legally obligated to provide vast sums in compensation to climate-vulnerable states.⁴¹

The outcome of the twenty-seventh session of the Conference of the Parties (COP 27) in 2022 on Loss and Damage is therefore significant, with the Parties – developed and developing – agreeing to establish new funding arrangements and a fund for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, in responding to loss and damage (UNFCCC 2022a, 2022b). After months of tense

negotiations, in November 2023, a Transitional Committee, which was established to operationalise the new fund and funding arrangements, agreed a set of recommendations for consideration and adoption by COP 28.

Both the COP decision text and negotiations recognised that pre-arranged financing has an important role in addressing loss and damage, with the new fund forming part of a “mosaic of solutions” both inside and outside the UNFCCC (UNFCCC 2023a, 2023b). The decision text also explicitly recognised the Global Shield against Climate Risks, an initiative which aims to provide and facilitate more and better prearranged financial protection against climate- and disaster-related risks for vulnerable people and countries, as part of this mosaic of solutions for addressing loss and damage (see Box 5.2 for more details).

⁴¹ The Paris Agreement has a caveat (paragraph 52), which states that Article 8 on loss and damage 'does not involve or provide a basis for any liability or compensation' (UNFCCC 2015).

BOX 5.2: THE GLOBAL SHIELD AGAINST CLIMATE RISK

Championed by the German government and jointly launched by the V20 Group of Ministers of Finance and the G7 at the COP 27 summit, the stated aim of the Global Shield against Climate Risks is “to provide and facilitate more and better pre-arranged protection against climate and disaster related risks for vulnerable people and countries.” (GIZ 2023) The resulting increase in financial protection against climate disasters is framed as a contribution to addressing climate change-induced losses and damages.

The Global Shield’s financing structure includes three complementary funds: 1. the Global Shield Solutions Platform, which builds on the InsuResilience Solutions Fund; 2. the Global Shield Financing Facility at the World Bank, which is the reformed Global Risk Financing Facility; and 3. the Climate Vulnerable Forum (CVF) and V20 Joint Multi-Donor Fund.

In its initial phase, the Global Shield is starting activities in eight pathfinder countries and one pathfinder region, namely Bangladesh, Costa Rica, Ghana, Jamaica, Malawi, Pakistan, The Philippines, Senegal, and the Pacific. Additional Global Shield partner countries will be selected in the future. The G7 and other countries have currently pledged EUR270 million to the Global Shield, and efforts are underway to mobilise further funding.

However, there are limits to the scope and effectiveness of pre-arranged financing, particularly insurance, for addressing loss and damage (Mustapha 2022, Mustapha and Williams 2023, Richards et al. 2022). Most notably, PAF is a set of instruments and approaches that focus on ensuring funds are available to respond to shocks, and in some cases to undertake specific preparedness actions. Within the current available instruments, pre-arranged financing is typically used to plan and prepare for crisis events, and not the wider scope of mitigation, adaptation and curative finance needed to address avoidable and unavoidable losses and damages.

There are also a range of practical challenges to overcome in delivering effective pre-arranged financing, including developing reliable triggers and effective response plans that pay out when most needed. Meanwhile, some instruments may not offer good value for money in certain contexts,

with insurance (as currently packaged) perceived as becoming prohibitively expensive for more frequent or severe risks. There is also a lack of robust evidence on the effectiveness of these instruments (and DRF more broadly) in addressing disaster impacts, particularly with respect to the impact on the poorest and most vulnerable (IGP and MCII 2021, Hill et al. 2021) and from slow-onset processes. Thus, while the need for strengthening and scaling-up pre-arranged financing is recognised in the Loss and Damage space, it is not seen as a panacea.

The political narrative and expectations surrounding financing responses to the climate crisis are rapidly evolving. There is growing pressure for country- and locally-led solutions that go beyond insurance, that do not exacerbate debt vulnerabilities, and that address a wider range of climate impacts, including non-economic impacts and impacts from slow-onset processes.

6

CONCLUSION

Pre-arranged financing has entered a unique moment of possibility, which must be used to advocate for far greater use of PAF that delivers for climate- and crisis-vulnerable people.

Pre-arranged financing for disaster response emerged as a relatively recent technical field within international development cooperation, with growing but modest levels of interest, support and demand from partner countries. At the UNFCCC COP 27 meeting in November 2022, with the formal launch of the G7- and V20-backed Global Shield against Climate Risks, and the landmark agreement among the Parties to establish a fund to respond to Loss and Damage, PAF has been elevated to a key focus of international climate policy. This increased attention is much needed to help drive an expansion of financial protection. Supporters and providers of pre-arranged financing must navigate these new political landscapes with care. They must also confront the many areas in which PAF is falling short of meeting the needs of vulnerable countries and people, in a warming climate where exposure to risk is growing, and where the affordability of financial protection is under pressure.

Substantial changes in the instruments, types and terms of financing on offer will be needed to overcome growing affordability challenges the poorest countries now face. The types of international development financing for PAF and the instruments available do not meet the needs of the poorest and most vulnerable countries. More than half of international development

financing support for PAF (56.4%, USD3.1 billion) between 2017 and 2021 did not qualify as ODA, but fell within the scope of other official flows. The majority of international development financing for PAF was provided in the form of loans rather than grant financing, making it unattractive and unaffordable for countries struggling with high levels of debt and many urgent demands on national budgets. Some notable efforts have been made to adapt the instruments on offer, including creating regional risk pools for Africa, the Pacific and Southeast Asia. The World Bank has also extended its contingent credit offer to low-income countries and offered more attractive terms. Uptake of these instruments, however, remains low.

Debt sustainability is a growing concern for many low- and middle-income countries, and fiscal consolidation pressures to reduce debt vulnerability are likely to hamper the use of Pre-arranged financing. Affordability of PAF is a disincentive to uptake under such conditions. The provision of premium subsidies for insurance products could help to reduce constraints to uptake. However, premium support is currently typically provided with the expectation that countries will eventually take these payments onto their own balance sheets. This expectation is becoming increasingly untenable. Against this backdrop, governments face increasingly difficult prioritisation decisions, which is likely to adversely impact demand for PAF directly financed by governments.

Monitoring international development financing investments in PAF provides a key tool to drive change towards better outcomes for climate- and crisis-vulnerable people. The primary purpose of this report is to provide a trusted baseline and trend monitoring tool to enable more evidence-based reflection and discussion on trends, levels and patterns of investment in pre-arranged financing, enabling readers to assess and monitor whether

international investments are targeting the right tools and instruments, and reaching the places where they are needed most. This inaugural annual report seeks to help close critical evidence gaps that support the scale-up of effective pre-arranged financing that meets the needs of those most vulnerable to shocks. The Centre is committed to working closely with partners to advocate for and improve data quality and coverage over time.

REFERENCES

EXECUTIVE SUMMARY

- InsuResilience Global Partnership (IGP).** (2019). *Pro-poor Principles of the InsuResilience Global Partnership*. <https://www.insuresilience.org/publication/pro-poor-principles-of-the-insuresilience-global-partnership/>
- International Monetary Fund (IMF).** (2023). *IMF-World Bank Debt Sustainability Framework for Low-Income Countries*. <https://www.imf.org/en/About/Factsheets/Sheets/2023/imf-world-bank-debt-sustainability-framework-for-low-income-countries>
- Organisation for Economic Co-operation and Development (OECD).** (2022). *DAC and CRS list of codes [xlsx]*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm)
- Organisation for Economic Co-operation and Development (OECD).** (2023). *Creditor Reporting System (CRS)*. OECD. Stat. <https://stats.oecd.org/index.aspx?DataSetCode=CRS1#>
- World Bank Group.** (2023a). *World Bank Country and Lending Groups [xlsx]*. World Bank Data Help Desk. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- World Bank Group.** (2023b). *World Development Indicators*. DataBank. <https://databank.worldbank.org/source/world-development-indicators>
- Meenan, C., Ward, J., Nevison, J., and Cassottana, B.** (2023). *Synthesis report: Measuring the crisis protection gap*. Working paper. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/measuring-the-crisis-protection-gap-a-summary-of-research-exploring-technical-approaches-for-estimating-global-crisis-protection-costs>
- Organisation for Economic Co-operation and Development (OECD).** (2022). *DAC and CRS list of codes [xlsx]*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm)
- Organisation for Economic Co-operation and Development (OECD).** (2023). *Small Island Developing States - SIDS*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/small-island-developing-states.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/small-island-developing-states.htm)
- Poole, L., Clarke, D., and Swithern, S.** (2020) 'The future of crisis financing: a call to action', Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/the-future-of-crisis-financing-a-call-to-action>
- Scott, Z.** and Clarke, D. (2021). *Predict and protect: G7 solutions for a new approach to crisis risk financing*. Crisis Lookout. https://static1.squarespace.com/static/61542ee0a87a394f7bc17b3a/t/61ba376172665334330ee63b/1639593828406/Crisis_lookout_14Aprilv4.pdf
- Scott, Z.** (2022). *Finance for Early Action: Tracking Commitments, Trends, Challenges and Opportunities*. Risk-informed Early Action Partnership (REAP). <https://www.early-action-reap.org/finance-early-action-tracking-commitments-trends-challenges-and-opportunities>
- United Nations Framework Convention on Climate Change (UNFCCC).** (2015). Paris Agreement to the United Nations Framework Convention on Climate Change. United Nations, Geneva. https://unfccc.int/sites/default/files/english_paris_agreement.pdf
- United Nations High Commissioner for Refugees (UNHCR).** (2023). *Global Trends: Forced Displacement in 2022*. <https://www.unhcr.org/global-trends-report-2022>
- Wilkinson, E., Scobie, M., Lindsay, C., Corbett, J., Carter, G., Bouhia, R., and Bishop, M.** (2021). *Sustaining development in Small Island Developing States: a reform agenda*. Policy brief. ODI, London. <https://odi.org/en/publications/sustaining-development-in-small-island-developing-states-a-reform-agenda/>

CHAPTER 1

- Caso, N., Hilhorst, D., and Mena, R.** (2023). The contribution of armed conflict to vulnerability to disaster: Empirical evidence from 1989 to 2018. *International Journal of Disaster Risk Reduction*, Volume 95. <https://doi.org/10.1016/j.ijdrr.2023.103881>
- German Federal Ministry of Economic Cooperation and Development (BMZ).** (2022). *A Global Shield against Climate Risks: Germany's G7 proposal for tackling climate-related losses and damages in developing countries*. <https://www.bmz.de/resource/blob/116900/bmz-infopapier-globaler-schutzschirm-en.pdf>
- Hillier, D. and Plichta, M.** (2021). *Methodology for calculating pre-arranged ODA funding: Note for discussion*. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/methodology-for-calculating-pre-arranged-oda-funding>

CHAPTER 2

- Bündnis Entwicklung Hilft.** (2022). *WorldRiskIndex Results 2022*. The WorldRiskReport. <https://weltrisikobericht.de/weltrisikobericht-2022-e/#worldriskindex>
- Hillier, D.** and Plichta, M. (2021). *Methodology for calculating pre-arranged ODA funding: Note for discussion*. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/methodology-for-calculating-pre-arranged-oda-funding>
- INFORM.** (2022). *INFORM Risk Index 2023*. DRMKC - Disaster Risk Management Knowledge Centre. <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/469/controller/Admin/action/Results>
- International Aid Transparency Initiative (IATI).** *IATI Datastore*. Retrieved 17 August 2023 from <https://datastore.iatistandard.org/>
- Organisation for Economic Co-operation and Development (OECD).** (2022). *DAC and CRS list of codes [xlsx]*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm)
- Organisation for Economic Co-operation and Development (OECD).** (2023a). *Other official flows (OOF)*. OECD iLibrary. <https://doi.org/10.1787/6afef3df-en>
- Organisation for Economic Co-operation and Development (OECD).** (2023b). *Creditor Reporting System (CRS)*. OECD. Stat. <https://stats.oecd.org/index.aspx?DataSetCode=CRS1#>
- Organisation for Economic Co-operation and Development (OECD).** (n.d.). *Official development assistance (ODA)*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/official-development-assistance.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/official-development-assistance.htm)
- World Bank Group.** (2023a). *Poverty headcount ratio at \$2.15 a day (2017 PPP) (% of population) - Low-income, Lower-middle-income, Upper-middle-income*. World Bank Open Data. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=XM-XN-XT>
- World Bank Group.** (2023b). *World Bank Country and Lending Groups [xlsx]*. World Bank Data Help Desk. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- World Bank Group.** (2023c). *World Development Indicators*. DataBank. <https://databank.worldbank.org/source/world-development-indicators>

CHAPTER 3

- InsuResilience Global Partnership (IGP).** (2021). Background Note on targets and indicators for Vision 2025: A refined Monitoring & Evaluation framework for the InsuResilience Global Partnership. <https://www.insuresilience.org/publication/background-note-on-targets-and-indicators-for-vision-2025-a-refined-monitoring-evaluation-framework-for-the-insuresilience-global-partnership/>
- InsuResilience Global Partnership (IGP).** (2023). Annual Report 2022: Jointly Paving the Way Towards Vision 2025. https://www.insuresilience.org/wp-content/uploads/2023/05/Annual_report22_230503-005.pdf
- Global Shield Secretariat.** (2023). *InsuResilience Implementation Data 2020-2022*. Unpublished.
- Organisation for Economic Co-operation and Development (OECD).** (2022). *DAC and CRS list of codes [xlsx]*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm](https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm)
- World Bank Group.** (2023). *World Bank Country and Lending Groups [xlsx]*. World Bank Data Help Desk. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

CHAPTER 4

- Anticipation Hub.** (2023). *Anticipatory Action in 2022: A Global Overview*. <https://www.anticipation-hub.org/advocate/anticipatory-action-overview-report/overview-report-2022>
- African Risk Capacity, African Union, and KfW Development Bank (ARC, AU and KfW).** (2021). *Fighting climate disasters across Africa: Germany announces support for climate insurance at COP 26: German Government Announces €18m Premium Support to subsidize climate insurance for African Risk Capacity (ARC) Member States*. Joint Press Release, 3 November 2021. <https://arc.int/news/german-government-announces-eu18m-premium-support-subsidize-climate-insurance-african-risk>
- African Risk Capacity (ARC).** (2023a). *African Risk Capacity Limited Integrated Annual Report 2022*. <https://arc-report.sketchup.co.za/>
- African Risk Capacity (ARC).** (2023b). *African Risk Capacity Group*. <https://www.arc.int/>
- Artemis.** (n.d.). *Bosphorus 1 Re Ltd*. Artemis Catastrophe Bond Deal Directory. <https://www.artemis.bm/deal-directory/bosphorus-1-re-ltd/>
- Artemis.** (2018). *World Bank hails investor appetite for “historic” \$1.36bn cat bond*. Artemis. <https://www.artemis.bm/news/world-bank-hails-investor-appetite-for-historic-1-36bn-cat-bond/>

- Artemis.** (2023). *Artemis Catastrophe Bond & Insurance-Linked Securities Deal Directory*. <https://www.artemis.bm/deal-directory/>
- Bertram, V.** and Chowdhary, J. (2023). *From 'no-go' to 'must have': where next for premium support?* Blog, 10 August 2023. Centre for Disaster Protection, London. <https://www.disasterprotection.org/blogs/from-no-go-to-must-have-where-next-for-premium-support>
- Centre for Research on the Epidemiology of Disasters (CRED).** (2023). *EM-DAT: The International Disaster Database*. University of Louvain (UCLouvain). <https://public.emdat.be/>
- Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC).** (2022). *CCRIF SPC Annual Report 2021-2022*. <https://www.ccrif.org/publications/annual-report/ccrif-spc-annual-report-2021-2022>
- Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC).** (2023). *Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC)*. <https://www.ccrif.org/>
- Doğal Afet Sigortalar Kurumu (DASK).** (2015). *Turkish Catastrophe Insurance Pool Compulsory Earthquake Insurance: 2014 Annual Report*. https://dask.gov.tr/upload/Dask/Raporlar/Faaliyetraporlari/Ing%20Faaliyet%20Raporlar/2014_Annual_Report_TCIP.pdf
- Evans, S.** (2022). *Philippines cat bond triggers on typhoon Rai (Odette) winds, \$52.5m payout due*. Artemis. <https://www.artemis.bm/news/philippines-cat-bond-triggers-on-typhoon-rai-odette-winds-52-5m-payout-due/>
- Fitch Ratings.** (2021). *Catastrophe Bond Gives Jamaica New Layer of Protection Against Hurricanes*. Non-rating action commentary. Fitch Ratings. <https://www.fitchratings.com/research/sovereigns/catastrophe-bond-gives-jamaica-new-layer-of-protection-against-hurricanes-15-09-2021>
- Genesis Analytics.** (2022). *Mid-term review of the ADRiFi programme: MTR Final Report*, June 2022. Unpublished.
- Ghesquiere, F.** and Mahul, O. (2021). *Sovereign catastrophe risk pools - 15 years on and still more to come*. World Bank Blog, 8 December 2021. <https://blogs.worldbank.org/psd/sovereign-catastrophe-risk-pools-15-years-and-still-more-come>
- International Federation of Red Cross and Red Crescent Societies (IFRC).** (2022). *Anticipatory Action: Using forecasts to prevent hazards from becoming disasters*. https://www.ifrc.org/sites/default/files/2022-02/220203_IFRC_Anticipatory%20Action_Brochure_final.pdf
- International Federation of Red Cross and Red Crescent Societies (IFRC).** (2023). *World Disasters Report 2022*. <https://www.ifrc.org/document/world-disasters-report-2022>
- KfW Development Bank (KfW).** (2020). *Greater climate resilience through African Risk Capacity (ARC): BMZ Emergency COVID-19 Support Programme*. Blog, 12 July 2020. KfW, Frankfurt am Main. https://www.kfw-entwicklungsbank.de/International-financing/KfW-Development-Bank/About-us/News/News-Details_620288.html
- Kim, J. Y.** (2015). *We need a new global response to pandemics*. World Economic Forum. <https://www.weforum.org/agenda/2015/01/we-need-a-new-global-response-to-pandemics/>
- Martinez-Diaz, L., L. Sidner, and J. McClamrock.** (2019). *The Future of Disaster Risk Pooling for Developing Countries: Where Do We Go from Here?* Working paper. World Resources Institute, Washington DC. <http://www.wri.org/publication/disaster-risk-pooling>
- Matera, M.** (2020). *Disclosable Version of the ISR - Madagascar Disaster Risk Management Development Policy Financing with a Catastrophe Deferred Drawdown Option (Cat DDO) - P167941 - Sequence No : 01 (English)*. Implementation Status and Results Report. World Bank Group, Washington DC. <http://documents.worldbank.org/curated/en/159351585245114492/Disclosable-Version-of-the-ISR-Madagascar-Disaster-Risk-Management-Development-Policy-Financing-with-a-Catastrophe-Deferred-Drawdown-Option-Cat-DDO-P167941-Sequence-No-01>
- Organisation for Economic Co-operation and Development (OECD).** (2023). *Creditor Reporting System (CRS)*. OECD. Stat. <https://stats.oecd.org/index.aspx?DataSetCode=CRS1#>
- Oxford Policy Management (OPM).** (2022). *Independent Evaluation of the African Risk Capacity - Second Formative Evaluation Final Report*. <https://www.opml.co.uk/files/Publications/a0603-independent-evaluation-african-risk-capacity/arc-second-formative-evaluation-final-report.pdf?noredirect=1>
- Pacific Catastrophe Risk Insurance Company (PCRIC).** (2023a). *Pacific Catastrophe Risk Insurance Company (PCRIC)*. <https://pcric.org/>
- Pacific Catastrophe Risk Insurance Company (PCRIC).** (2023b). *Annual report 2022*. <https://pcric.org/from-vision-to-action-pcric-releases-its-second-annual-report/>
- Southeast Asia Disaster Risk Insurance Facility (SEADRIF).** (2022). *SEADRIF Annual report 2021*. https://seadrif.org/wp-content/uploads/2022/06/SEADRIF_Annual-Report2021.pdf
- Southeast Asia Disaster Risk Insurance Facility (SEADRIF).** (2023). *Southeast Asia Disaster Risk Insurance Facility (SEADRIF)*. <https://seadrif.org/>
- United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA).** *Coordinated plans 2022*. Financial Tracking Service (FTS). Retrieved 15 August 2023 from <https://fts.unocha.org/plans/overview/2022/plans>
- World Bank.** (2017). *Pandemic Emergency Financing Facility (PEF) Framework : Prospectus Supplement Dated June 28, 2017*. Report. World Bank Group. <https://thedocs.worldbank.org/en/doc/f355aa56988e-258a350942240872e3c5-0240012017/pandemic-emergency-financing-facility-pef-framework-prospectus-supplement-dated-june-28-2017>

- World Bank Group.** (2009). *World Bank Launches “MultiCat Program”*. Press release no. 2010/100. World Bank Group, Washington DC. <https://www.worldbank.org/en/news/press-release/2009/10/19/world-bank-launches-multicat-program>
- World Bank Group.** (2017). *World Bank Bonds to Provide \$360 Million in Catastrophe Protection for Mexico*. Press release. World Bank Group, Washington DC. <https://www.worldbank.org/en/news/press-release/2017/08/04/bonos-del-banco-mundial-proporcionaran-a-mexico-us360-millones-en-proteccion-ante-catastrofes>
- World Bank Group.** (2018). *World Bank Affirms Position as Largest Sovereign Risk Insurance Provider with Multi-Country Earthquake Bond*. Press release. World Bank Group, Washington DC. <https://www.worldbank.org/en/news/press-release/2018/02/07/world-bank-affirms-position-as-largest-sovereign-risk-insurance-provider-with-multi-country-earthquake-bond>
- World Bank Group.** (2020). *East Asia and Pacific - Southeast Asia Disaster Risk Insurance Facility : Strengthening Financial Resilience in Southeast Asia Project (English)*. Project appraisal document, PAD3386. World Bank Group, Washington DC. <http://documents.worldbank.org/curated/en/448271609883644172/East-Asia-and-Pacific-Southeast-Asia-Disaster-Risk-Insurance-Facility-Strengthening-Financial-Resilience-in-Southeast-Asia-Project>
- World Bank Group.** (2022). *IDA20 - Building Back Better from the Crisis : Toward a Green, Resilient and Inclusive Future (English)*. Board report. World Bank Group, Washington DC. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/163861645554924417/ida20-building-back-better-from-the-crisis-toward-a-green-resilient-and-inclusive-future>
- World Bank Group.** (2023a). *World Bank Executes its Largest Single Country Catastrophe Bond and Swap Transaction to Provide Chile \$630 Million in Financial Protection Against Earthquakes*. Press release. World Bank Group, Washington DC. <https://www.worldbank.org/en/news/press-release/2023/03/17/world-bank-executes-its-largest-single-country-catastrophe-bond-and-swap-transaction-to-provide-chile-630-million-in-fin>
- World Bank Group.** (2023b). *Development Policy Financing (DPF)*. <https://www.worldbank.org/en/what-we-do/products-and-services/financing-instruments/development-policy-financing>
- World Bank Group.** (2023c). *Prior Actions database (FY22)*. <https://thedocs.worldbank.org/en/doc/ed4dbe34c-2cd2555d0d7b28952bddf54-0290032023/original/DPADdatabaseFY22.xlsx>
- World Bank Group.** (2023d). *Projects*. Retrieved on 9 August 2023 from <https://projects.worldbank.org/en/projects-operations/projects-list>
- World Bank Group.** (2023e). *World Bank Country and Lending Groups [xlsx]*. World Bank Data Help Desk. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- World Bank Treasury.** (2021). *IBRD Catastrophe Deferred Drawdown Option (Cat DDO)*. Product note. <https://thedocs.worldbank.org/en/doc/1820b53ad5cba038ff885cc3758ba59f-0340012021/original/Cat-DDO-IBRD-Product-Note.pdf>
- World Resources Institute** (2019) *The Future of Disaster Risk Pooling for Developing Countries: Where Do We Go from Here?* <https://files.wri.org/d8/s3fs-public/future-disaster-risk-pooling-developing-countries.pdf>

CHAPTER 5

- Agarwala, M.,** Burke, M., Klusak, P., Mohaddes, K., Volz, U., and Zenghelis, D. (2021). *Climate Change and Fiscal Sustainability: Risks and Opportunities*. *National Institute Economic Review* 258, pp. 28-46. <https://doi.org/10.1017/nie.2021.37>
- Allan, S.** and Bayley, E. (2023). *Opportunity Cost of Covid-19 Budget Reallocations: Cross-Country Synthesis*. Centre for Disaster Protection Report, London. <https://www.disasterprotection.org/publications-centre/opportunity-cost-of-covid-19-budget-reallocations-cross-country-synthesis-report>
- Allan, S.** and Paterson, C. (2019). *Managing the Financial Cost of Disasters: Lessons for IDA from the UK Government’s approach to Risk Management of Explicit Contingent Liabilities*. Discussion paper. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/managing-the-financial-cost-of-disasters>
- Bakhtaoui, I.,** Shawoo, Z., Chhetri, R. P., Huq, S., Hossain, M. F., Iqbal, S. M. S., Lindsay, C., Mustapha, S., Naushin, S. Schaefer, L., Schalatek, L., Sircar, A., Tahsin, K. T., Thomas, A., and Wilkinson, E. (2022). *Operationalizing finance for loss and damage: from principles to modalities*. SEI report. Stockholm Environment Institute. <http://doi.org/10.51414/sei2022.045>
- Bertram, V.** and Chowdhary, J. (2023). *From ‘no-go’ to ‘must have’: where next for premium support?* Blog, 10 August 2023. Centre for Disaster Protection, London. <https://www.disasterprotection.org/blogs/from-no-go-to-must-have-where-next-for-premium-support>
- Bhandari, P.,** Warszawski, N., Cogan, D., and Gerholdt, R. (2022). *What Is “Loss and Damage” from Climate Change? 8 Key Questions, Answered*. Explainer. World Resource Institutes, Washington DC. <https://www.wri.org/insights/loss-damage-climate-change>
- Dunz, N.** and Power, S. (2021). *Climate-Related Risks for Ministries of Finance: An Overview*. Coalition of Finance Ministers for Climate Action, Washington DC. https://www.financeministersforclimate.org/sites/cape/files/inline-files/Climate-Related%20Risks%20for%20Ministries%20of%20Finance%20-%20An%20Overview%20%28CFMCA%29_1.pdf

- Franczak, M.** (2023). *Financing Loss and Damage at Scale: Toward a Mosaic Approach*. International Peace Institute. <https://www.ipinst.org/2023/05/financing-loss-and-damage-at-scale-toward-a-mosaic-approach>
- German Agency for International Cooperation (GIZ)**. (2023). *Global Shield against Climate Risks*. <https://www.globalshield.org/>
- Hill, R. V.,** Campero Peredo, A., and Tarazona, M. (2021). *What do we know about preparing financially for disasters? An assessment of the evidence gap*, Brief, Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/what-do-we-know-about-preparing-financially-for-disasters-an-assessment-of-the-evidence-gap>
- InsuResilience Global Partnership (IGP)**. (2022). *Smart Premium and Capital Support Enhancing Climate and Disaster Risk Finance Effectiveness Through Greater Affordability and Sustainability*. Guidance note. <https://www.insuresilience.org/publication/smart-premium-and-capital-support-enhancing-climate-and-disaster-risk-finance-effectiveness-through-greater-affordability-and-sustainability/>
- InsuResilience Global Partnership (IGP)** and Munich Climate Insurance Initiative (MCI). (2021). *From Innovation to Learning: A Strategic Evidence Roadmap for Climate and Disaster Risk Finance and Insurance*. <https://www.insuresilience.org/publication/a-strategic-evidence-roadmap-for-climate-and-disaster-risk-finance-and-insurance/>
- International Monetary Fund (IMF)**. (2022). *Proposal to establish a Resilience and Sustainability Trust*. Policy Paper No. 2022/013. <https://www.imf.org/en/Publications/Policy-Papers/Issues/2022/04/15/Proposal-To-Establish-A-Resilience-and-Sustainability-Trust-516692>
- International Monetary Fund (IMF)**. (2023a). *World Economic Outlook Database*, April 2023 Edition. <https://www.imf.org/en/Publications/WEO/weo-database/2023/April>
- International Monetary Fund (IMF)**. (2023b). *List of LIC DSAs for PRGT-Eligible Countries, As of August 31, 2023*. <https://www.imf.org/external/Pubs/ft/dsa/DSAlist.pdf>.
- Intergovernmental Panel on Climate Change (IPCC)**. (2022). *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report. <https://www.ipcc.ch/report/ar6/wg2/>
- Klusak, P.,** Agarwala, M., Burke, M., Kraemer, M., and Mohaddes, K. (2023). *Rising Temperatures, Falling Ratings: The Effect of Climate Change on Sovereign Creditworthiness*. *Management Science*. <https://doi.org/10.1287/mnsc.2023.4869>
- Meenan, C.** (2023). *The Chile cat bond - taking the temperature*. Blog, 24 March 2023. Centre for Disaster Protection, London. <https://www.disasterprotection.org/blogs/the-chile-cat-bond-taking-the-temperature>
- Mustapha, S.** (2022). *Contributions and Challenges of Disaster Risk Financing as a Response to Climate Change Induced Losses And Damages*. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/contributions-and-challenges-of-disaster-risk-financing-as-a-response-to-climate-change-induced-losses-and-damages>
- Mustapha, S.** and Williams, E. (2023). *Addressing Loss and Damage: Insights on the Fund and the Global Shield*. Insight paper. Centre for Disaster Protection, London. <https://www.disasterprotection.org/publications-centre/addressing-loss-and-damage-insights-on-the-fund-and-the-global-shield>
- Organisation for Economic Co-operation and Development (OECD)**. (n.d.). *Modernising the measurement of concessional sovereign loans*. [OECD.org. https://www.oecd.org/dac/financing-sustainable-development/concessional-sovereign-loans.htm](https://www.oecd.org/dac/financing-sustainable-development/concessional-sovereign-loans.htm)
- Richards, J-A.** and Mukayiranga, E. P., with Roberts, E. (2022). *Is Climate Insurance a Global Shield, or Does Climate-related Loss and Damage Require a Different Approach?* The Loss & Damage Collaboration. <https://www.lossanddamagecollaboration.org/publication/is-climate-insurance-a-global-shield-or-does-climate-related-loss-and-damage-require-a-different-approach>
- United Nations Conference on Trade and Development (UNCTAD)**. (2023). *Trade and Development Report Update (April 2023): Global Trends and Prospects*. <https://unctad.org/publication/trade-and-development-report-update-april-2023>
- United Nations Department of Economic and Social Affairs (UN DESA)**. (2023). *Financing for Sustainable Development Report 2023*. <https://desapublications.un.org/publications/financing-sustainable-development-report-2023>
- United Nations Framework Convention on Climate Change (UNFCCC)**. (2015). *Paris Agreement to the United Nations Framework Convention on Climate Change*. United Nations, Geneva. https://unfccc.int/sites/default/files/english_paris_agreement.pdf
- United Nations Framework Convention on Climate Change (UNFCCC)**. (2022a). *Decision 2/CP.27: Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage*. United Nations, Geneva. <https://unfccc.int/sites/default/files/resource/decision%202%20CP%2027.pdf>
- United Nations Framework Convention on Climate Change (UNFCCC)**. (2022b). *Decision 2/CMA.4: Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage*. United Nations, Geneva. <https://unfccc.int/sites/default/files/resource/decision%202%20CMA%204.pdf>

United Nations Framework Convention on Climate Change (UNFCCC). (2023a). Report of the first workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4. United Nations, Geneva. https://unfccc.int/sites/default/files/resource/WS1_Report.pdf

United Nations Framework Convention on Climate Change (UNFCCC). (2023b). Synthesis report on existing funding arrangements and innovative sources relevant to addressing loss and damage associated with the adverse effects of climate change. United Nations, Geneva. https://unfccc.int/sites/default/files/resource/TC2_SynthesisReport.pdf

United Nations General Assembly (UNGA). (2023). *The Report of the Main findings and recommendations of the Midterm Review of the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.* A/77/640. <https://www.undrr.org/quick/76209>

World Bank Group. (2011). *Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines - OECS Catastrophe Insurance Project (English).* Implementation Completion and Results Report. World Bank Group, Washington DC. <http://documents.worldbank.org/curated/en/903431468290739758/Dominica-Grenada-St-Lucia-St-Vincent-and-the-Grenadines-OECS-Catastrophe-Insurance-Project>

ANNEX 1: GLOSSARY

All definitions are developed by the Centre for Disaster Protection unless stated otherwise.

Contingent credit

A type of pre-arranged financing whereby a loan is approved in advance of a crisis and is guaranteed to be provided to a specific implementer when a specific pre-identified trigger condition is met.

Contingent liabilities

Obligations to pay costs associated with a possible, but uncertain, future event. Because there is no obligation to pay unless the event occurs, contingent liabilities might not be formally listed as a liability on an organisation's balance sheet. Contingent liabilities might be explicit or implicit:

- Explicit contingent liabilities are contractual commitments to make certain payments if a particular event occurs. The basis of these commitments can be contracts, laws or clear policy statements.
- Implicit contingent liabilities are political or moral obligations to make payments, for example in the event of a crisis or a disaster. Governments do not recognise these liabilities until a particular event occurs. Implicit contingent liabilities are difficult to assess, let alone manage in a consistent manner, precisely because of their implicit nature.

Crisis protection gap

The difference between total expected contingent liabilities of national or international responders (i.e. the costs they can expect to incur in responding to crises) and the expected funding available to meet these costs through pre-arranged financing mechanisms.

Disaster risk financing

The system of budgetary and financial mechanisms to credibly pay for a specific risk, arranged before a

potential shock. This can include paying to prevent and reduce disaster risk, as well as preparing for and responding to disasters.

Official development assistance

Government aid that promotes and specifically targets the economic development and welfare of developing countries (OECD).

Other official flows

Transactions by the official sector with countries on the DAC List of ODA Recipients which do not meet the conditions for eligibility as official development assistance, either because they are not primarily aimed at development, or because they have a grant element of less than 25% (OECD).

Pre-arranged financing

Financing that has been approved in advance of a crisis and that is guaranteed to be released to a specific implementer when a specific pre-identified trigger condition is met. The trigger may be based on data or models related to impact, forecasts, or projections of need, or a declaration of emergency (or similar) by the specified respondent. The funding may be used for anticipatory action or in response to a crisis, either linked to a clear plan for a very specific purpose or general budget support.

Total crisis financing

A sub-set of international development financing, which includes activities and flows to organisations whose primary purpose is to deliver prevention, preparedness and response to crises.

Trigger

A trigger is a predefined threshold of an index underlying a risk finance mechanism which, if exceeded, prompts a payout. A trigger may also leave an element of discretion to a designated party about whether or not to launch a response activity.

ANNEX 2: DATA SOURCES

Data source	Hyperlink
Anticipation Hub Anticipatory Action in 2022: A Global Overview	https://www.anticipation-hub.org/advocate/anticipatory-action-overview-report/overview-report-2022 (Anticipatory action in 2022: figures and data)
Artemis Catastrophe Bond & Insurance-Linked Securities Deal Directory	https://www.artemis.bm/deal-directory/
EM-DAT: The International Disaster Database	https://public.emdat.be/
IATI Datastore	https://datastore.iatistandard.org/
IATI Registry	https://www.iatiregistry.org/
IMF World Economic Outlook Database	https://www.imf.org/en/Publications/WEO/weo-database/2023/April
INFORM Risk Index	https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/469/controller/Admin/action/Results
Global Shield Secretariat (formerly IGP) Implementation Data 2020-22	Unpublished
OECD Creditor Reporting System (CRS)	https://stats.oecd.org/index.aspx?DataSetCode=CRS1#
OECD DAC and CRS list of codes	https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm
UNOCHA Financial Tracking Service (FTS)	https://fts.unocha.org/
World Bank Country and Lending Groups	https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
World Bank Group database of prior actions	https://www.worldbank.org/en/what-we-do/products-and-services/financing-instruments/development-policy-financing (Development Policy Operations: Prior Actions)
World Bank Open Data	https://data.worldbank.org/
World Bank Projects	https://projects.worldbank.org/en/projects-operations/projects-list
World Development Indicators	https://databank.worldbank.org/source/world-development-indicators https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
World Risk Index	https://weltrisikobericht.de/weltrisikobericht-2022-e/#worldriskindex

ANNEX 3. METHODOLOGICAL NOTES

1. CALCULATING INTERNATIONAL DEVELOPMENT FINANCING FOR PAF USING CRS DATA

For the exercise of calculating international development financing for PAF at the global level, the Centre relies on data in the OECD DAC Creditor Reporting System,⁴² which captures donor reporting on aid flows to ODA-eligible countries at the project or transaction level.

How the PAF methodology is applied to the CRS data

The PAF methodology aims to capture funding commitments which meet the criteria of:

- Pre-arranged financing
- Funding for anticipatory action (a subset of PAF)

Each of these categories will be presented in absolute volume terms and as a percentage of wider sub-sets of aid. PAF will be presented as a percentage of ‘crisis financing’ and funding for anticipatory action as a percentage of humanitarian financing. The PAF methodology and tool is designed to capture these four values.

In order to apply this approach to the CRS data the following steps are necessary:

1. Identify international development financing for PAF and funding for anticipatory action within transaction level data.
2. Agree and construct a total ‘humanitarian financing’ value from groupings of purpose codes.

3. Agree and construct a total ‘crisis financing’ value from groupings of channel codes, purpose codes and transaction-level data.

Detailed description of the approach

1 Parameters

This methodology was developed based on the 2020 and 2021 CRS data and the purpose codes used to classify information for those reporting years.⁴³

For the relevant flows, the current **USD disbursement amount** will be selected in order to capture the actual spending on PAF in the reporting year. It also avoids missing out on multi-year project spending where the committed amount is only being reported in the first year of the project.

The amounts will be deflated using the most recent year as base year, so the data is in constant prices rather than current prices.

2 Approach

The three categories of funding (international development financing for PAF, and the sub-category funding for anticipatory action; total humanitarian financing; and total crisis financing) will be compiled through a combination of selecting identified purpose codes and channel codes, and conducting keyword searches on project descriptions in the transaction-level data.

1. Identify PAF and funding for anticipatory action within transaction-level data

- a) Keyword searches across all sector/purpose codes on terms:

42 The Creditor Reporting System provides detailed information on individual aid activities, such as sectors, countries, project descriptions etc. used to derive aggregate data. International Development Statistics (IDS) online databases - OECD <https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/idsonline.htm>

43 When in a later stage the analysis gets applied to individual donors, this dataset will need to be complemented by data on members' total use of the multilateral system: select relevant donor and then click on the underlined amounts to get the full datasets. The ‘contributions through’ multilaterals are included in the overall CRS data (with the multilateral institution as channel), so only the ‘core contributions to’ are needed in order to complement the dataset.

Action anticipatoire, Action d'anticipation, ADRiFi, African Risk Capacity, Anticipatory, ARC premium, ARC Replica, Assurance climatique, Assurance contre les catastrophes, Assurance contre les desastres, Assurance indicielle, Assurance secheresse, Cat DDO, Catastrophe Deferred Drawdown Option, Catastrophe insurance, CCRIF, Centre for Disaster Protection, CERC, Climate insurance, Contingency plan, Contingent credit, Contingent Emergency Response Component, Contingent financing, Contingent loan, Crisis modifier, Dedommagement, Disaster financing, Disaster insurance, Disaster Relief Emergency Fund, Disaster resilience improvement program, Disaster resilience program, Disaster risk finance, DREF, DRF, Drought insurance, Early action, Early response, FbF, Financement de la riposte aux desastres, Financial preparedness, Forecast based, GRiF, Humanitarian insurance, Index insurance, InsuResilience, Parametric, Payout, PCRIC, Premium subsidies, Premium subsidy, Riposte anticipative, Risk financing, Risk insurance, Risk mapping, Risk monitoring, Risk pool, Risk transfer, Riposte aux choques, Risque de catastrophe, Risques de catastrophe, Science for Humanitarian Emergencies and Resilience, SFERA, SHEAR, Start Ready, Subventions de prime d'assurance, Transfert de risque

Of these, seven were considered relevant to funding for anticipatory action:

Action anticipatoire, Action d'anticipation, Anticipatory, FbF, Forecast based, Riposte anticipative, Start Ready

- b) Manual checking of the keyword search results to include only what is in line with the PAF definition. This process includes the following steps:
 - a. Delete irrelevant transactions, such as:
 - i. Flows that are only related to Disaster Risk Reduction or resilience-building
 - ii. Flows that are about conflict-related early warning

- iii. Financing for shock-responsive social protection
- iv. Anything else that is not disaster-related.
- b. Assign whether the transaction classifies as direct PAF, indirect PAF, both or part PAF:
 - i. **Direct PAF:** payments into programmes or instruments that are then used to pay out to beneficiaries (such as regional risk pools, ADRiFi, Cat DDOs, contingent loans, anticipatory action)
 - ii. **Indirect PAF:** capacity building, technical assistance, research related to PAF
 - iii. **Part PAF:** one project component relates to the definition of PAF.
- c) Identify transactions that contribute to pooled funds SFERA and DREF, to then apply a percentage that reflects the amount that counts as PAF. This information will be retrieved from annual reports by **SFERA** and **DREF** where the organisations specify the use of these funds. For 2021, for example, the respective percentages to apply are 28.8%⁴⁴ and 3.3%⁴⁵.
- d) Remove CERF transactions that have the CERF as a channel rather than as donor. These are likely to be reporting errors and might cause double counting.

2. Quantify total humanitarian financing

Follow the OECD's description of humanitarian aid and the purpose codes that are part of this:⁴⁶

720 Emergency Response - 72010 Material relief assistance and services - 72040 Emergency food assistance - 72050 Relief co-ordination and support services - **730 Reconstruction Relief &**

⁴⁴ The calculation is done by dividing the 'AA' or 'Early Action' window by the 'Grand total applications'. For previous years the percentages are: 4.4% (2020), 31.3% (2019), 8.8% (2018) and 10.4% (2017).

⁴⁵ The calculation is done by dividing the 'FbA Fund Allocations' by ('FbA Fund Allocations' + 'Total DREF Allocations'). For previous years the percentages are: 7.2% (2020), 2.4% (2019) and 0% (2017-18).

⁴⁶ <https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/humanitarian-assistance.htm>

Rehabilitation - 73010 Immediate post-emergency reconstruction and rehabilitation - **740 Disaster Prevention & Preparedness** - 74020 Multi-hazard response preparedness

3. Construct total crisis financing

In addition to what is included in total humanitarian financing and what is identified as PAF outside of humanitarian purpose codes:

a) Include all the financing under channel codes:

21016 International Committee of the Red Cross - 21018 International Federation of Red Cross and Red Crescent Societies - 21029 Doctors Without Borders - 23501 National Red Cross and Red Crescent Societies - 41121 United Nations Office of the United Nations High Commissioner for Refugees - 41127 United Nations Office of Co-ordination of Humanitarian Affairs - 41130 United Nations Relief and Works Agency for Palestine Refugees in the Near East - 41147 Central Emergency Response Fund - 41315 United Nations Office for Disaster Risk Reduction - 41321 World Health Organisation – Strategic Preparedness and Response Plan - 41403 COVID-19 Response and Recovery Multi-Partner Trust Fund - 43003 International Monetary Fund – Subsidization of Emergency Post Conflict Assistance/ Emergency Assistance for Natural Disasters for PRGT-eligible members - 43005 International Monetary Fund – Post-Catastrophe Debt Relief Trust - 43006 Catastrophe Containment and Relief Trust - 47123 Geneva International Centre for Humanitarian Demining - 47137 African Risk Capacity Group - 47502 Global Fund for Disaster Risk Reduction

b) Include all the financing under purpose codes:

12264 COVID-19 control - 15240 Reintegration and SALW control - 15250 Removal of land mines and explosive remnants of war - 15261 Child soldiers (prevention and demobilisation) - 43060 Disaster Risk Reduction

c) Keyword searches across other selected channel/purpose codes:

Keywords:

Catastrophe - Cold wave - Conflict affected - Conflict prevention – Crisis – Cyclone – Disaster – Drought – Dzed - Early warning – Earthquake - Emergency assistance - Emergency cash - Emergency food - Emergency liquidity - Emergency recovery - Emergency response – Epidemic – Famine – Flood - Forced migration - Global Risk Assessment Framework – Hazard - Heat wave – Humanitarian – Hurricane - Hyogo Framework - Internal displacement - Landslide - Loss and damage – Outbreak – Preparedness - Refugee – Relief - Sendai Framework - Shock adaptive - Shock recovery - Shock responsive - Tropical storm – Tsunami – Typhoon - Volcano

Run across the following purpose codes:

111 Education, Level Unspecified - 11110 Education policy and administrative management - 11120 Education facilities and training - 11130 Teacher training - 11182 Educational research - 112 Basic Education - 11220 Primary education - 11230 Basic life skills for adults - 11231 Basic life skills for youth - 11232 Primary education equivalent for adults - 11240 Early childhood education - 11250 School feeding - 11260 Lower secondary education - 121 Health, General - 12110 Health policy and administrative management - 12191 Medical services - 122 Basic Health - 12220 Basic health care - 12230 Basic health infrastructure - 12240 Basic nutrition - 12250 Infectious disease control - 12261 Health education - 12262 Malaria control - 12263 Tuberculosis control - 12281 Health personnel development - 130 Population Policies/Programmes & Reproductive Health - 13010 Population policy and administrative management - 13020 Reproductive health care - 13030 Family planning - 13081 Personnel development for population and reproductive health - 140 Water Supply & Sanitation - 14010 Water sector policy and administrative management - 14015 Water sources conservation (including data collection) - 14020 Water supply and sanitation – large systems - 14021

Water supply – large systems - 14022 Sanitation – large systems - 14030 Basic drinking water supply and basic sanitation - 14031 Basic drinking water supply - 14032 Basic sanitation - 14040 River basins development - 14050 Waste management/disposal - 14081 Education and training in water supply and sanitation - 151 Government & Civil Society-general - 15110 Public sector policy and administrative management - 15111 Public finance management (PFM) - 15114 Domestic revenue mobilisation - 15142 Macroeconomic policy - 15160 Human rights - 15170 Women’s rights organisations and movements, and government institutions - 15190 Facilitation of orderly, safe, regular and responsible migration and mobility - 152 Conflict, Peace & Security - 15220 Civilian peace-building, conflict prevention and resolution - 160 Other Social Infrastructure & Services - 16010 Social Protection - 16020 Employment creation - 16050 Multisector aid for basic social services - 16062 Statistical capacity building - 210 Transport & Storage - 21010 Transport policy and administrative management - 21020 Road transport - 21030 Rail transport - 21040 Water transport - 21050 Air transport - 21061 Storage - 21081 Education and training in transport and storage - 240 Banking & Financial Services - 24010 Financial policy and administrative management - 24020 Monetary institutions - 24030 Formal sector financial intermediaries - 24040 Informal/semi-formal financial intermediaries - 24050 Remittance facilitation, promotion and optimisation - 24081 Education/training in banking and financial services - 311 Agriculture - 31110 Agricultural policy and administrative management - 31120 Agricultural development - 31130 Agricultural land resources - 31140 Agricultural water resources - 31191 Agricultural services - 321 Industry - 32130 Small and medium-sized enterprises (SME) development - 410 General Environment Protection - 41010 Environmental policy and administrative management - 430 Other Multisector - 43010 Multisector aid - 43030 Urban development and management - 43040 Rural development - 43071 Food security policy and administrative management - 43072 Household food security programmes - 43082 Research/scientific institutions - 510 General budget support - 51010 General budget support-related aid - 520 Development Food Assistance - 52010 Food assistance - 600 Action Relating to Debt - 60010 Action relating to debt - 60020

Debt forgiveness - 60030 Relief of multilateral debt - 60040 Rescheduling and refinancing - 60061 Debt for development swap - 60062 Other debt swap - 60063 Debt buy-back

d) Exclude transactions that contain the following keywords from the data:

Comic Relief - Sport Relief - Medical Relief Society - Assemblies of God Relief and Development Services - Catholic Relief Services - AIDS Relief - World Bicycle Relief – KSrelief - The RELIEF Centre - Relief International

e) Manually check transactions that contain ‘debt relief’

f) Spot check for irrelevant transactions

As a first step, the 500 transactions with the highest value of USD disbursement will be checked manually to decide on their inclusion. If irrelevant transactions are identified, it will be checked whether there are other amounts included under the same project title or description, to also exclude these.

Additionally, due to the large amount of transactions that classify as total crisis financing, only every 1,000 lines of the data where USD disbursement ≠ 0 will be checked for false positives.

Note: *It should be checked that some of these categories are subsets of others, so the broader category includes all the flows that are part of the narrower category. This is the case for: funding for anticipatory action < humanitarian assistance < total crisis financing, funding for anticipatory action < PAF < total crisis financing.*

The keywords pandemic, reconstruction, recovery and rehabilitation are not included on the basis that they pick up too many unrelated projects and, in many cases, there is a second qualifying term included in descriptions that would ensure inclusion.

3 Review process

For quality assurance, transactions that need a second opinion are highlighted first for closer review. If still in doubt, they are to be discussed more broadly within the Centre.

Transactions that are to be deleted are also first highlighted and then removed after the first review.

Limitations

This methodology intends to use the existing codes and classifications as much as possible. However, this means that there will be many inaccuracies in the numbers that it produces. Similar to the previous work done by the Centre and Development Initiatives on tracking financial flows for crises, keyword searches on project descriptions and titles will be used to capture part of the total crisis financing, as the system currently does not tag this.⁴⁷ Manual verification would be needed to identify false positives, which can lead to more inaccuracies given the scale of this exercise which aims to provide a global overview.

There are significant differences in the level of detail and more generally the way of reporting across bilateral and multilateral donors (e.g. the interpretation of purpose codes, use of different languages). This further limits the accuracy of this methodology in calculating the metrics of interest. Over time, increased awareness by donors on the importance of capturing PAF might overcome the lack of detail in reporting and/or introduce a standardised way of tagging relevant aid flows to improve the quality of this exercise (e.g. adding PAF as a Type of Aid in the OECD DAC CRS reporting code list).

2. QUANTIFYING PAF IN NEAR REAL-TIME USING DATA FROM THE INTERNATIONAL AID TRANSPARENCY INITIATIVE

Major donors of PAF identified in the OECD DAC CRS data analysis were prioritised for analysis of their reporting to IATI. These were identified as the Asian Development Bank, the World Bank, Germany and the Inter-American Development Bank.

The data for the identified donors was retrieved from the IATI datastore on 17 August 2023, with the exception of IADB. For IADB, the data was pulled directly from the IATI Registry on 17 August 2023, since their files were not passing validation and therefore not available on the IATI datastore. There are many reasons that a file may not pass validation, and in this case, it was not considered a major issue, hence there was no reason to exclude this data.

Disbursements were selected for all donors except Germany's BMZ, where 'budgets' were selected since their disbursements are reflective of actual spend due to a reporting anomaly.

A keyword search was then performed in the IATI fields of 'Title narrative', 'Description narrative' and 'Transaction description narrative'. As for the CRS data, the keywords searches (the list of keywords are included in the section on CRS methodology above) were performed on the lists for (1) funding for anticipatory action; and (2) pre-arranged financing. As for the CRS data, all keyword searches were performed in a non-case-sensitive manner and with special characters accounted for.

The positive returns were reviewed manually to determine whether the project was an example of Indirect PAF, Direct PAF, Both or only part PAF. These positive returns were also compared to the markings and manual review on the CRS to retain consistency.

47 Crossley, E., Hillier, D., Plichta, M., Rieger, N., and Waygood, S. (2021). Funding disasters: tracking global humanitarian and development funding for response to natural hazards. Centre for Disaster Protection and Development Initiatives, London. <https://www.disasterprotection.org/publications-centre/funding-disasters-tracking-global-humanitarian-funding-for-response-to-natural-hazards>

Contact information

Centre for Disaster Protection
WeWork
1 Poultry
London EC2R 8EJ
United Kingdom

✉ info@disasterprotection.org

 [Centre for Disaster Protection](#)

 [CentreForDP](#)

 disasterprotection.org

Cover image: Cloudy sky in daytime at the city.
Credit: kh.rakib, Shutterstock.

