

Risk Finance
Umbrella Program

Annual Report


MARCH 2022 - FEBRUARY 2023

Disaster Risk Financing
& Insurance Program



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Abbreviations

AA	Administrative Agreement
ASEAN+3	Association of Southeast Asian Nations plus China, Japan, and Republic of Korea
cat bond	catastrophe bond
CAT DDO	Catastrophe Deferred Drawdown Option
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CMU	Country Management Unit (World Bank)
CNAAI	Comité National sur l'Assurance Agricole Indicielle (National Committee on Agricultural Index Insurance; Niger)
GRiF	Global Risk Financing Facility (World Bank)
GSFF	Global Shield Financing Facility (formerly Global Risk Financing Facility)
HoA	Horn of Africa
IBLI	Index-based livestock insurance
IFC	International Finance Corporation (World Bank)
JICA	Japan International Cooperation Agency
MDTF	multi-donor trust fund
MSMEs	micro, small, and medium enterprises
NUSAF	Northern Uganda Social Action Fund
PASA	Programmatic Advisory Services and Analytics
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PCRIC	Pacific Catastrophe Risk Insurance Company
PFM	public financial management
PforR	Program for Results (World Bank)
PMT	Project Management Team
PPP	public-private partnership
RFU	Risk Finance Umbrella (World Bank)
SEADRIF	Southeast Asia Disaster Risk Insurance Facility
SECO	Swiss State Secretariat for Economic Affairs
SMEs	small and medium enterprises
USAID	United States Agency for International Development

Note: All amounts in US dollars unless otherwise noted.

Executive Summary

The new Risk Finance Umbrella (RFU) Program was created to strengthen the financial resilience of low- and middle-income countries against disasters, climate shocks and other crises. In its first year, it supported 27 countries through substantial technical work including new risk finance policies and solutions, and innovative analytics. The RFU Program mobilized private sector finance and additional funding for implementation of risk finance, including over \$21 million in reinsurance and nearly \$1.7 billion in World Bank investments. The RFU Program helped countries better understand disaster risks and their budgetary and economic impacts, contributed to safeguarding the poorest against climate and disaster shocks, and protected economic growth.

During this first year of the Program, the World Bank piloted a new, fully demand-driven approach, with all the project funding channeled through country programs. This approach led to higher visibility for the RFU Program and risk finance agenda, stronger ownership by governments and World Bank country offices, and better comprehension of country demand for disaster risk finance. This year of the full rollout of the RFU Program helped generate valuable lessons learned. The global work was channeled through the newly established Global Risk Finance Programmatic Advisory Services and Analytics (PASA), which will finance all upstream DRF work. The PASA has already supported global knowledge management and initiated country dialogues.

27 countries received funding support from the RFU Program in 2021–22, although the depth of the engagement differs. The program portfolio included country engagements across all World Bank regions: Africa: Eastern and Southern; Africa: Western and Central; Middle East and North Africa; East Asia and Pacific; Europe and Central Asia; South Asia, and Latin American and the Caribbean. Across these regions, the RFU Program has supported both traditional and innovative risk financing solutions, helped secure country ownership, and built client capacity.



In Nepal, the RFU Program supports the government in insuring hospitals, schools, and other critical public assets against natural disasters. The program helped quantify Nepal's disaster risks; the resulting valuation model prevents public assets from being underinsured so that when disaster does strike, insurance payouts fully cover the cost of repairs. Additional analysis led the government to amend nationwide property insurance tariff rates. The RFU Program also supports Nepal's efforts to strengthen financial resilience, funded by a \$150 million World Bank development policy operation.



\$150 million

The RFU Program's analytical and advisory services were provided across the disaster risk finance landscape and organized in three pillars:

- 1 Strengthening pre-arranged financial resources to respond to climate shocks, disasters, and crises.** Under this pillar, six countries benefited from PFM of disasters—for example, they quantified how disasters translate into fiscal risks or developed better legal frameworks. Five disaster risk finance strategies were developed.
- 2 Developing financial markets for risk finance.** Under this pillar, several countries benefited from better financial markets and mechanisms, and the program helped leverage more than \$21 million from financial markets.
- 3 Strengthening financial disbursement mechanisms across sectors.** Under the DRIVE project in the Horn of Africa, almost 17,000 low-income pastoralists (58 percent of them women) received payouts from pre-arranged risk finance instruments. Three countries have improved their financing disbursement mechanisms. Several countries are working on targeted risk finance solutions for smallholder farmers, small businesses, and households headed by women to address the increased threat of food and job insecurity caused by climate change.



In Uganda, the RFU Program is leveraging disaster risk finance mechanisms to improve the social protection system.

Findings from a disaster risk finance diagnostic funded by the RFU Program are helping Uganda expand coverage for a safety net that is part of the World Bank's \$250 million Northern Uganda Social Action Fund (NUSAF) Project. To increase food security and financial resilience among poor households impacted by drought, the RFU program funded work to scale up the mechanism for an ex ante conditional cash transfer, more than doubling its coverage (from 8 to 20 districts); a similar mechanism is being piloted for floods. The diagnostic also led the Global Shield Financing Facility to award the RFU Program a grant of \$20 million, even though Uganda was not announced as a Global Shield pathfinder country.



The RFU Program provided technical expertise that supported analytical and advisory work, started and deepened policy dialogue, improved the risk finance landscape, informed the design of risk finance instruments, and supported the preparation of World Bank lending operations—all as part of the RFU Program’s upstream mandate. This upstream work was complemented by that of downstream financing vehicles administered by the World Bank—for example, the Global Shield Financing Facility (GSFF, formerly the Global Risk Financing Facility [GRiF]), which co-finances disaster risk finance activities implemented by World Bank client countries. In Indonesia, for instance, the government is implementing its first Disaster Risk Finance and Insurance Strategy, which was developed with support from one of the RFU Program donors. The adoption of this strategy helped mobilize funding from the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) and GRiF. With support from donors, the government established a \$2.5 billion insurance program for than 5,000 buildings of over 70 government agencies. The government also established a dedicated disaster reserve fund (a pooling fund), supported through a \$500 million World Bank lending operation. As highlighted during

a Risk Finance Umbrella Technical Advisory Group meeting in November 2022, Morocco is another example of how upstream support can lead to strong institutions committed to strengthening financial resilience. Previous support by the Swiss State Secretariat for Economic Affairs (SECO) Sovereign Disaster Risk Finance in Middle-Income Countries Program helped Morocco establish a dual catastrophe protection scheme that consists of insurance for higher-income households and a solidarity fund for low-income households. A \$5.3 million GRiF grant is now supporting a \$200 million World Bank operation, to issue a catastrophe bond that will provide a sustainable, public funding mechanism to protect vulnerable households during catastrophes

Risk finance is an innovative agenda and ensuring that newly generated knowledge is shared across borders is a critical task of the RFU Program. In eight countries, more than 600 government officials were trained on risk finance through nearly 40 workshops. The RFU Program also supported communication materials to mainstream risk finance to the public, such as blogs.

▼ Public Transportation Victor Idrogo / Icónica / Maia Films





Introducing the New Risk Finance Umbrella Program

Financial resilience against disasters, climate shocks, and other crises

Established in July 2022, the new Risk Finance Umbrella (RFU) Program strengthens the financial resilience of low- and middle-income countries against disasters, climate shocks, and other crises. RFU Program grants fund the analytical and advisory activities that improve the enabling environment for implementing pre-arranged disaster risk financing solutions. Specifically, the activities focus on improving financial management in countries, developing financial markets for market-based solutions, and strengthening risk finance mechanisms at the sectoral level. The RFU Program grants aim to mobilize downstream financing such as lending or further donor funding, and in this way to help embed disaster risk finance principles in operations in client countries.

The RFU program deepens the impact of the World Bank’s disaster risk finance trust fund portfolio. Through a multiyear reform process, the World Bank is creating “umbrellas” that consolidate funding and increase impact for its strategic priorities—among them the disaster risk finance agenda. The RFU Program combines two trust funds that had been supported since 2011 by the Swiss State Secretariat for Economic Affairs (SECO) Sovereign Disaster Risk Finance in Middle-Income Countries Program and, since 2021, by the United States Agency for International Development (USAID) Financial Resilience Program. The consolidated structure harmonizes governance mechanisms and results frameworks and strengthens communications and knowledge sharing initiatives. The RFU Program provides additional benefits to participating countries, increasing the visibility, ownership, and impact of disaster risk finance work on the ground by channeling grants through in-country or regional projects.



Box 1**WHAT SUPPORT DOES THE RISK FINANCE UMBRELLA PROGRAM PROVIDE TO COUNTRIES?**

The Risk Finance Umbrella Program grants mainly focus on upstream analytical and advisory work done by World Bank teams to support the preparation of World Bank lending operations and programs. This upstream work is complemented by the work of downstream financing vehicles administered by the World Bank that co-finance disaster risk finance activities implemented by World Bank client countries. An example is the Global Shield Financing Facility (GSFF), formerly the Global Risk Financing Facility (GRiF).



Analytical work. The RFU Program invests in identifying, developing, and piloting risk finance policies and instruments. This includes developing

global public goods such as financial exposure maps or climate risk models to address the challenges of scaling up risk finance and insurance solutions. Analytical work will also include developing methodologies and tools for portfolio risk management, remote sensing technology (which can help governments initiate an earlier financial response to disasters), cost-benefit analysis, insurance product pricing and structuring, and strengthening of public financial management (PFM) systems against climate, disaster, and crisis risks. In Nepal, RFU Program funds facilitated the development of a flood risk model and a valuation framework for schools and hospitals that can be expanded to value other public assets in the future. In the Horn of Africa (HoA), RFU funds supported a study to customize and validate index-based livestock insurance in Somalia, definition of unit areas of insurance across four Somali states, and product review and pricing to enable rollout of the product.



Knowledge sharing. At the global level, the RFU Program invests in various learning initiatives, such as standardized and customized training,

executive education, and one of the largest learning communities of practice on Disaster Risk Finance (DRF), bringing together over 10,000 stakeholders working on DRF in different capacities globally. These activities are complemented by robust knowledge resources, including a dedicated online learning platform – The Financial Protection Forum, E-learning delivered through the World Bank Group's Open Learning Platform and an online publications database. Between March 2022 and February 2023, the RFU Program had six active projects focused on knowledge management. Such knowledge sharing activities are often a necessary complement to the RFU Program's advisory and analytical work. Project teams frequently provide workshops on disaster risk finance for government officials and other in-country stakeholders.



Advisory services. The RFU Program, in coordination with World Bank counterparts, ensures that financial resilience interventions are embedded within


client country work programs. Advisory services are the program's core activities; they help mainstream risk finance in the development agenda of client countries. Between March 2022 and February 2023, the RFU Program had 14 active projects focused on analytical and advisory services. As part of South Africa's disaster risk finance diagnostic, the RFU Program conducted a fiscal gap analysis, which compared the risk exposure of the national budget to the amount of post-disaster financing it could access through existing financial instruments. Based on this work, the National Treasury committed to developing the National Disaster Risk Finance Policy in March 2023. In the Horn of Africa (HoA), RFU-funded technical support for the De-risking, Inclusion and Value Enhancement of Pastoral Economies (DRIVE) project is strengthening the enabling environment for conventional insurance and for the takaful market. A six-month training and capacity-building program for the insurance regulator carried out as part of the DRIVE project provided in situ and off-site theoretical and practical training for seven members of the non-banking supervision division, none of whom had prior insurance experience.

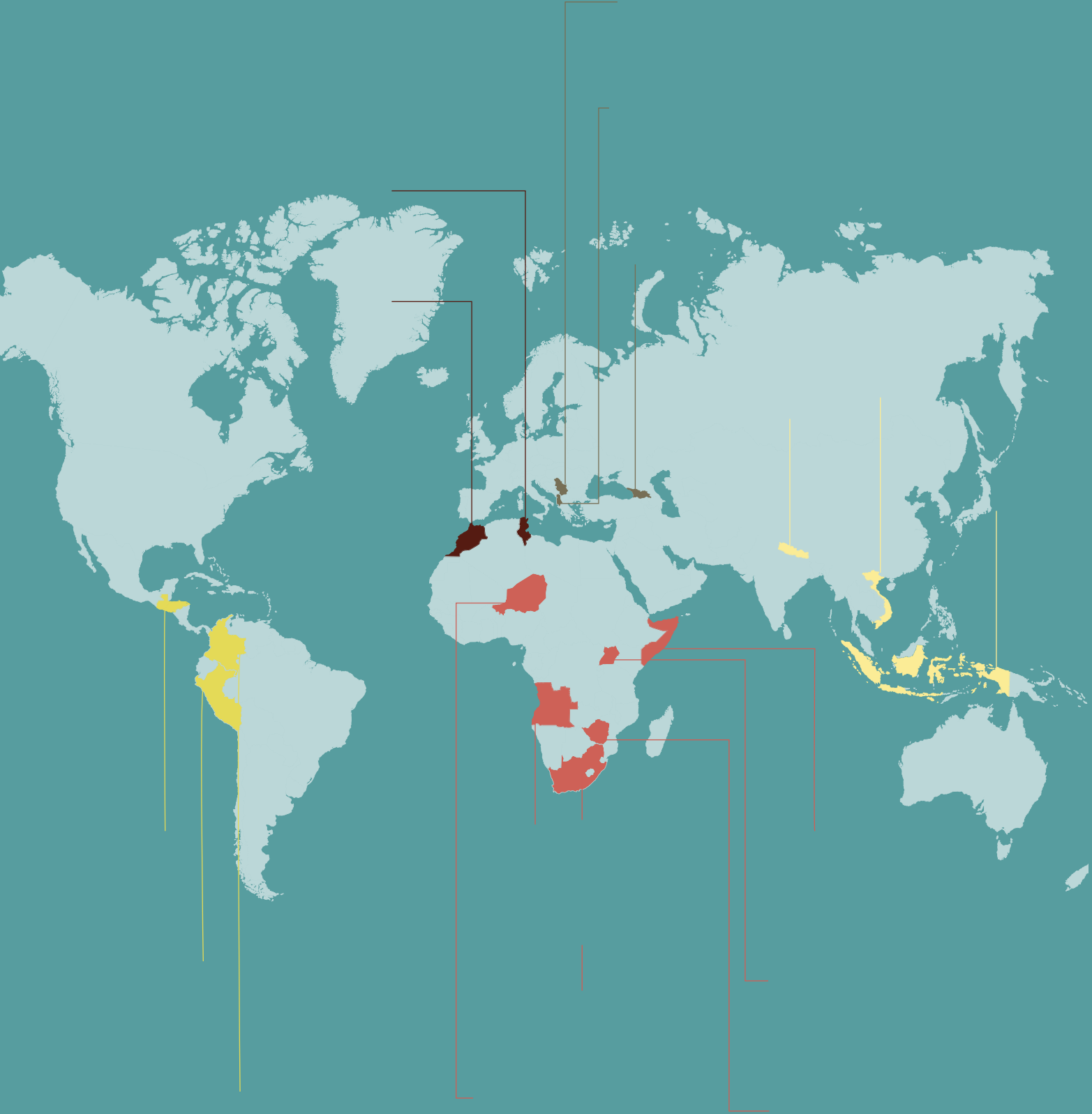


Policy Dialogue. The RFU Program contributes to high-level policy initiatives, such as the G20, and international working groups, such as the Network for

Greening the Financial System. It was instrumental in the November 2022 launch of the Disaster Risk Insurance and Finance in Central America Consortium at COP27, which aims to increase the food security and financial resilience of 2 million smallholder farmers in El Salvador, Guatemala, and Honduras.

COUNTRY AND REGIONAL PROJECTS*

Click on country names to read more 



*Map for creative representation only

Three pillars for increasing financial resilience

The Risk Finance Umbrella Program is organized around three pillars whose objectives are interlinked and mutually enhancing. The pillars demonstrate the variety and complexity of the disaster risk finance agenda.

Pillar 1

Strengthening pre-arranged financial resources to respond to climate shocks, disasters, and crises.

Grants made to projects under this pillar help countries access pre-arranged financing so that they can protect their budgets from the costs associated with relief and recovery efforts. With such mechanisms in place, they are better able to focus macroeconomic policies on longer-term sustainable growth. During the reporting period, RFU Program grants funded the following activities in support of the first pillar's objectives:



▲ Forest on fire © iStock

- **In Albania, Colombia, Georgia, Morocco, Peru, South Africa, Tunisia, and Uganda**, World Bank teams continued to work with governments to develop or strengthen their disaster risk finance strategies.
- **In Albania**, the World Bank team helped the government improve its public financial management by quantifying the potential impact of disasters in its budget planning. More specifically, for the first time, the Ministry of Finance and Economy accounted for the possible financial impact of natural disasters in its fiscal risk statement. The RFU Program is supporting similar work in **Georgia** and **Serbia**.
- **In Colombia**, the World Bank team continued to work with government to further implement Colombia's disaster risk finance strategy at multiple levels of government and within key sectors. At the national level, the new National Development Plan further integrated disaster risk finance into the country's long-term planning, and a new Catastrophe Deferred Drawdown Option (CAT DDO) will extend earlier CAT DDOs, including the third CAT DDO, which disbursed \$300 million in November 2022 during the rainy season. At the subnational level, technical assistance helped the Archipelago Department determine which insurance products offered through the Caribbean Catastrophe Risk Insurance Facility (CCRIF) would be most appropriate. At the sectoral level, the team is developing a disaster risk finance policy note for the transport sector.

Pillar 2

Developing financial markets for risk finance.

Grants made to projects under this pillar contribute to stronger, more stable domestic financial markets for disaster risk finance instruments. Projects help develop market-based risk transfer instruments as well as strengthen legal and regulatory frameworks to create a more enabling environment for risk transfer. During the reporting period, RFU Program grants funded the following activities in support of the second pillar's objectives:



Harvest in Guatemala
© Maria Fleischmann/World Bank

- In the **Horn of Africa**, technical assistance funded by the RFU Program developed a roadmap for the insurance market and completed index livestock insurance product design and distribution studies in Somalia. This effort built on the near decade that the World Bank has spent developing the HoA agricultural insurance market; Djibouti now has \$10 million in sovereign coverage, and Kenya and Somalia have \$10.5 million in livestock insurance coverage for the season starting October 2022. In addition, the RFU Program strengthened the enabling environment for insurance by helping to review and redraft Somalia's Insurance Bill (for the conventional market) and its Takaful Bill (which is aligned with Islamic principles). The RFU also supported the regulator in reviewing and updating both bills, which are expected to be adopted into law in 2023. In **El Salvador, Guatemala, Honduras, Niger, the Sahel, and South Africa**, where the threat of food insecurity is increasing, RFU Program funds continued to support the development and expansion of agricultural insurance products that can improve food security.
- In **Nepal**, where the government is prioritizing the financial protection of its public assets, RFU Program funds supported efforts to amend the Property Insurance Directive and specifically to set new, more risk-informed property insurance tariff rates for commercial, industrial, and public assets. This work was done by the team and the Nepal Insurance Authority. The team also reached an agreement with the Financial Comptroller General Office on the scope of a valuation model for schools and hospitals. Without such a valuation framework in place, these assets would likely be underinsured, and any payouts would not accurately reflect the cost of repairing or replacing them. The team also considered how to incorporate these valuations into the Public Asset Management System and link them to the country's disaster management information system. The team further supported the National Insurance Authority in introducing risk-based pricing for catastrophe insurance products. Going forward, the team will work with the government on setting up insurance mechanisms for the education and health sector, as well as on sovereign risk transfer for earthquakes. In **Morocco, Peru, and Uganda**, RFU Program grants likewise funded technical assistance that is helping governments determine the best mechanisms for protecting their public assets from disasters and climate shocks.

Pillar 3

Strengthening and integrating sectoral risk finance mechanisms for disaster, climate, and crises.

Grants made to projects under this pillar also support countries in establishing or expanding so-called shock-responsive systems—mechanisms that ensure post-disaster funding flows efficiently to those who need it. During the reporting period, RFU Program grants funded the following activities in support of the third pillar’s objectives:

- In **Uganda**, the World Bank team used the findings of a recently completed disaster risk finance diagnostic to scale up a shock-responsive social protection project that aims to protect poor households against food insecurity caused by droughts and floods. The ex-ante shock-responsive mechanism, which provides a conditional cash transfer through a public works program, will be expanded from 8 districts to 20, and a similar mechanism for flood will be piloted in 10 districts. The engagement will also support the government in developing a comprehensive disaster risk finance strategy and establishing a risk financing mechanism that can ensure the safety net’s long-term sustainability.
- In **Indonesia**, the World Bank team launched a new engagement that provides additional technical assistance to the Indonesian government, which is seeking to expand or adapt existing disaster risk insurance for priority sectors as outlined in the country’s National Disaster Risk Finance and Insurance Strategy. A stocktaking of existing disaster risk finance initiatives in the agricultural sector (including animal husbandry and fishery) and among small enterprises and homeowners is assessing both government-led and market-based programs, and further engagement with the government will help link these to the national strategy.

▼ Uganda: protect poor households against food insecurity © Stephan Gladieu / World Bank



Knowledge sharing:

Helping countries become proactive risk managers

The RFU Program recognizes the value of comprehensive knowledge sharing initiatives in helping vulnerable countries shift from being crisis responders to proactive risk managers.

RFU Program funding provides knowledge sharing and capacity building at the global, regional, and sectoral level, offering a mix of in-person and online training and knowledge products. A newly created center of learning in Singapore will serve as a regional hub for disaster risk finance knowledge and focus on delivering an enhanced training-the-trainers program. An additional study that examines how governments can reduce, in advance, the cost of any post-disaster budget reallocations is now being expanded as a resource for other countries. At the sectoral level, a webinar series is targeting stakeholders in Africa and Southeast Asia, guiding them on how to develop and use financing mechanisms to protect the agricultural sector from climate and disaster risks.

Project teams receiving RFU Program funds incorporate knowledge sharing activities into their work plan to strengthen understanding and ownership of disaster risk finance initiatives among their governmental counterparts. During the reporting period, teams led 37 disaster risk finance workshops financed or co-financed through the RFU, reaching over 600 government stakeholders, predominantly from Ministries of Finance globally. The goal is to provide operational learning and targeted upskilling to support ongoing projects in Albania, Colombia, Nepal, Niger, Serbia, South Africa, Uganda, and Zimbabwe. Such workshops contribute to in-country capacity and the likelihood that disaster risk finance efforts will succeed in the long run.



Fragility, conflict, and violence:

Bringing disaster risk finance to the most challenging contexts

Countries experiencing high levels of institutional and social fragility or violence face enormous barriers to achieving financial resilience; this is so even without accounting for the impact of natural disasters or climate shocks. The RFU Program is leveraging its expertise to test financial resilience measures in fragile economies, helping provide critical data analytics and develop financial solutions and disbursement mechanisms. With food security an urgent concern in such contexts, capacity building and technical studies funded by the RFU Program are supporting the development of agricultural insurance markets in Burkina Faso, Ethiopia, Mali, Niger, and Somalia.

The RFU Program also lends its technical expertise to World Bank initiatives such as the IDA (International Development Association) Crisis Response Window and its Early Response Financing, which aims to quickly mobilize financial resources during the early stages of emerging disease outbreaks and food security crises. The RFU Program also continues to work with the Global Crisis Risk Platform, adding to the World Bank's institutional capacity to anticipate, identify, and monitor potential compound risks and complex crises impacting its client countries.





^ Woman farmer in Niger © Stephan Gladieu / World Bank

Gender:

Addressing gaps in financial resilience

In alignment with the World Bank's Gender Strategy, the RFU Program makes every effort to include a gender lens in the work that it undertakes. To address gender in risk finance activities, the program works to identify gaps in potential outcomes between women and men and design interventions that address these gaps. In measuring progress toward reducing gender gaps, the RFU Program uses sex-disaggregated data where possible (see the RFU Program results framework in annex 5.) In Colombia, teams measure what percentage of female-headed households receive cash transfers when the country's CAT DDO is triggered by disaster. In Morocco, teams are helping the government consolidate data to

support the country's disaster risk finance strategy; the newly established Unified Social Registry allows the Moroccan government to identify the populations benefiting from the country's social fund coverage, including women. In Uganda, a shock-responsive social protection program ensures that at least 50 percent of participants are women by actively engaging them in the community-based targeting and selection of public works programs. In the Horn of Africa, the DRIVE project results indicators are disaggregated by gender and the project aims to reach women by including female pastoralists as insurance agents.

RFU project management

The RFU Program is managed by the Project Management Team (PMT). The PMT coordinates the day-to-day management of the RFU Program, which includes implementing the annual work plan and budgets (and addressing any implementation issues), and it supports country-level and thematic coordination of the program's activities. The PMT is also responsible for financial management; it monitors the RFU results framework, handles monitoring and reporting of RFU progress, implements the Communications and Visibility Plan, and coordinates with development partners for strategic fundraising.

The core team, comprising one financial sector specialist and one operations analyst, is headed by the Crisis and Disaster Risk Finance practice manager and supported by two Equitable

Growth, Finance, and Institutions operations officers. In FY23, the PMT hired two reporting and a monitoring and evaluation (M&E) consultants to support some of the main FY23 deliverables related to M&E, reporting, and communications.

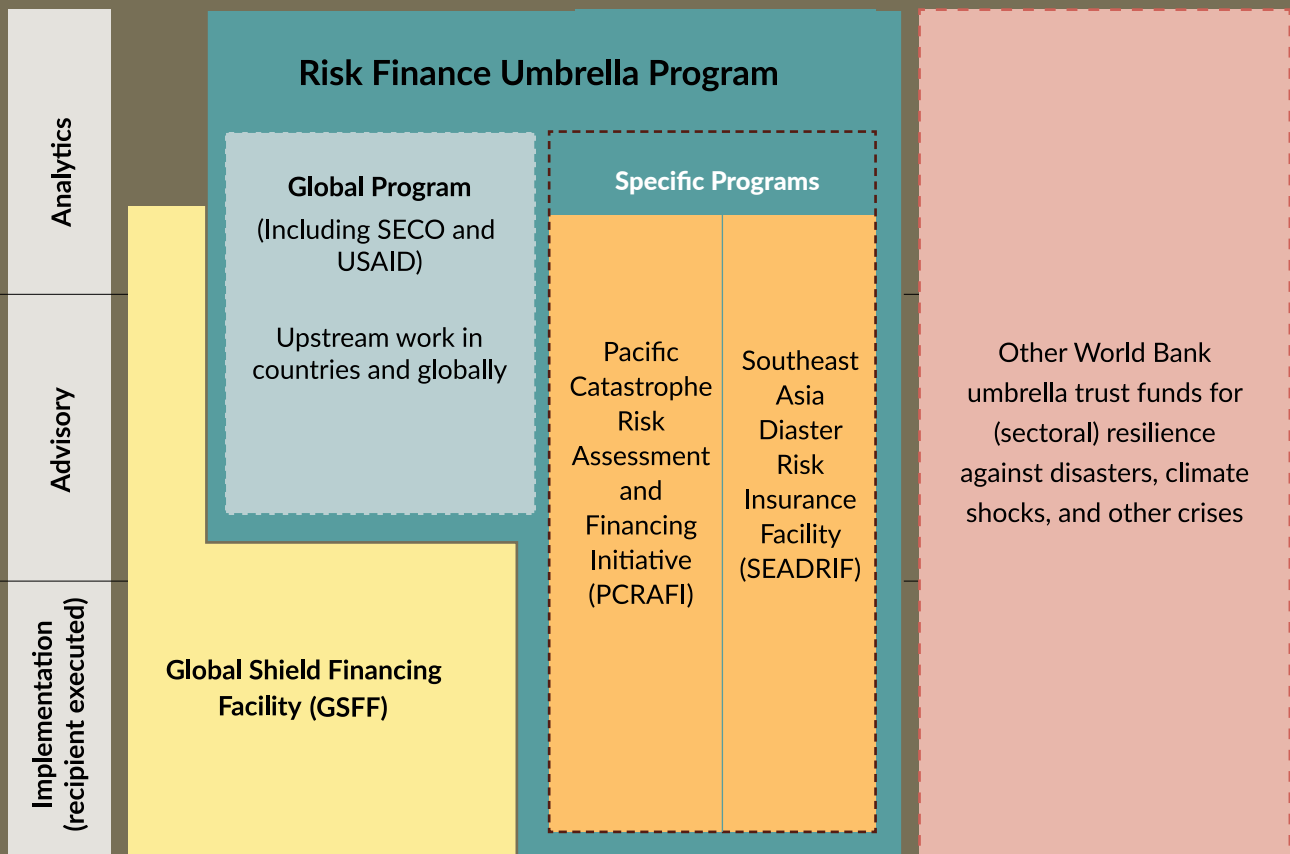
In FY23, the team developed the RFU results framework as well as a detailed Communications and Visibility Plan. As requested by RFU development partners, the PMT established a Technical Advisory Group, which met in November 2022. Members discussed Morocco as an example of how upstream technical work can prepare the way for downstream programs by developing and implementing risk finance vehicles. They also discussed the relation of the work in Morocco to the wider climate agenda in the country.



The RFU Program in relation to other risk finance trust funds

The RFU Program mainly focuses on upstream analytical and advisory work done by World Bank teams to initiate policy dialogue, inform the design of risk finance instruments, and support the preparation of lending operations. This upstream work is complemented by that of downstream financing vehicles administered by the World Bank—for example, the Global Shield Financing Facility (formerly the Global Risk Financing Facility [GRiF]), which co-finances the development and implementation of disaster risk finance instruments, either as part of larger World Bank lending operations or as part of so-called transfer outs, under which the World Bank transfers funds from a trust fund to an eligible partner entity.

Key outcomes of the RFU Program are shared with the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) and the Southeast Asian Disaster Risk Finance Facility (SEADRIF). These are regional risk pools that provide member countries with sovereign parametric insurance solutions against disasters and climate shocks. In FY23, the PCRAFI Multi-Donor Trust Fund (MDTF) and SEADRIF MDTF donors were invited to join the first Risk Finance Partnership Council meeting (held in in July 2022) to keep abreast of the ongoing upstream engagements, since ongoing World Bank trust fund reform might in the future associate both trust funds with the RFU Program. Work updates for both PCRAFI and SEADRIF are included in annex 4.





Incorporating Lessons Learned into the RFU Program Portfolio and Strategy

The RFU Program was able to draw on the experience of its predecessors in refining its strategic objectives and program design. The lessons below, which were provided by the World Bank's disaster risk finance experts, are relevant to the RFU Program's work and will continue to inform future RFU Program funding decisions.

Governments' demand for financial solutions that help manage the risks of disasters, climate shocks, and other crises will continue to grow—and the cost of these solutions will likely increase as well. The pandemic forced many governments to reexamine their financial resilience and to make such resilience a policy priority. Their growing need coincides with economic turbulence, which constrains their ability to build long-term financial resilience. The unprecedentedly high cost of reinsurance in 2022 presented governments, development partners, and donors with an even more challenging context for financing risk transfer solutions. The consolidated structure of the RFU Program is one bulwark against economic turbulence and ensures that development funds are deployed in a coordinated, effective response.

Strengthening public financial management is a precondition for successful sovereign disaster risk financing initiatives. The absence of legal and regulatory frameworks and weak institutional capacity are some of the main impediments that countries face in adopting pre-arranged financing solutions. The RFU Program assists governments in understanding and managing the climate- and disaster-related risks that reflect their unique circumstances.

In Somalia, for example, teams are working with stakeholders to review insurance laws and regulations so that they are compliant with Islamic traditions.

Disaster risk finance initiatives need to permeate all levels of government as well as key sectors. In most countries, the ministry of finance decides how to allocate funds, and it is line ministries and local governments that use the funds. Linking national disaster risk finance strategies to regional, local, and sectoral strategies increases the likelihood that principles are put into practice at a level that directly impacts people. Lessons learned from Colombia, whose efforts to integrate disaster risk finance strategies across government levels the RFU Program continues to support, will inform engagements with other countries.

Leveraging the private sector is the key to scaling up innovative financial solutions. With scarce public resources available, financial markets serve as a critical source of additional funding and a more efficient means of sharing risk between public and private stakeholders. Last-mile distribution remains one of the major challenges for microinsurance, and World Bank teams have had success in partnering with the private sector to overcome this obstacle. One of the most effective approaches has been the joint delivery of an integrated package of financial services (transaction accounts, savings accounts, and drought insurance) by insurers and financial entities such as banks and microfinance institutions. The participation of banks is helping to build trust in insurance, while distribution costs are shared by the partners.



Way Forward: Mobilizing Additional Financing and Funding More In-Depth Projects

As a combination of two trust funds designated for upstream disaster risk finance activities, the current RFU Program portfolio mirrors that of its predecessors. Now that it is firmly established, the RFU Program will focus on refining its portfolio and on funding more in-depth projects while meeting the demand from countries to provide just-in-time assistance when disasters, climate shocks, or other crises occur. In the future, additional funding would give the RFU Program greater leeway to support innovative approaches that could extend the benefits of disaster risk finance solutions to new sectors or environments.

The RFU Program complements the Global Shield Financing Facility. The Global Shield Financing Facility channels grants to developing countries through World Bank projects or through projects prepared by other participating partners, including United Nations agencies and multilateral development banks, and it collaborates with key stakeholders, such as civil society organizations, risk pools, the private sector, and humanitarian partners. During the next reporting period, the RFU Program aims to harmonize its results framework with that of the GSFF in order to create more seamless coordination between upstream advisory and analytical activities and downstream implementation of financial packages. To maximize its impact, the RFU Program will also explore how its activities can be more closely

aligned with other World Bank and partner investments. Not only will this assist countries in accessing critical finance for their disaster risk finance agendas, but it will also connect them to additional knowledge resources.

Finally, the new Communications and Visibility Plan is an important complement to the RFU Program's evolution, providing a strategy for deepening the program's engagement with stakeholders, enhancing the content and reach of its capacity-building programs, and mainstreaming disaster risk finance within the World Bank and among other partners.



Gorou Banda Energy Hub in Niger ©World Bank/Torie Smith

ANNEX 1:

Financial Overview

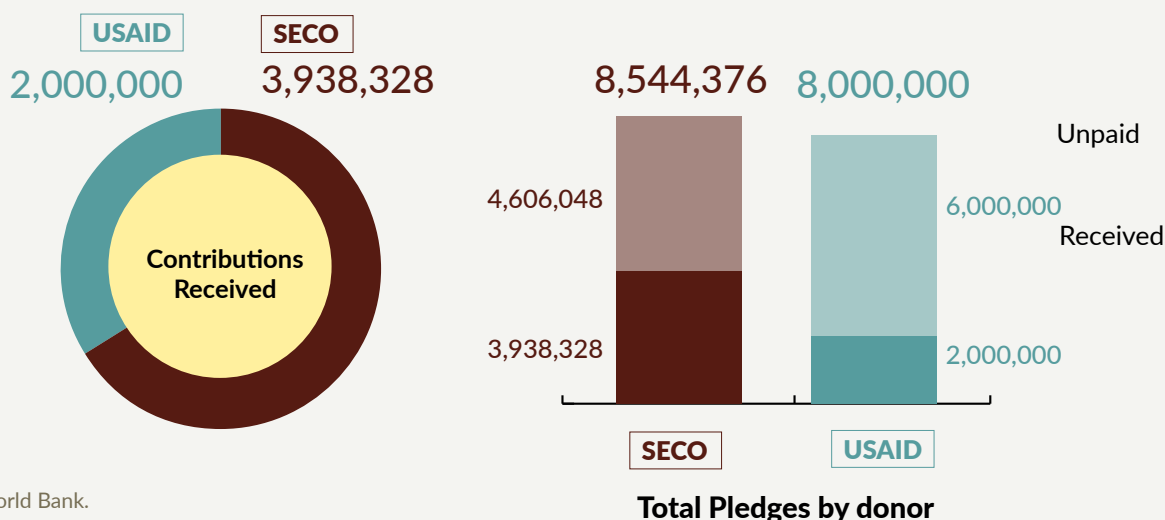
Donor commitments and contributions

As of February 28, 2023, the Swiss State Secretariat for Economic Affairs (SECO) and the United States Agency for International Development (USAID) have pledged \$16.5 million (RFU) funding through fiscal year 2026. SECO’s commitment is \$8.5 million¹ through FY25, and USAID’s is \$8 million through FY26. Of these commitments, \$5.9 million has been paid into the RFU Multi-Donor Trust Fund (MDTF), and \$10.6 million is to be received according to the agreed schedule. (See figure 1.)

As agreed in the Administrative Agreement (AA) with each donor, the paid-in contribution from SECO (\$3.9 million) was received in two installments, in June 2022 and January 2023. The paid-in contribution from USAID (\$2 million) was received in one installment, in September 2022. Since the first installment, the contributions have produced a total financial investment income of \$99,334, which has been added to the MDTF as per AA terms.

Figure 1.

RFU Program: Donor Contributions Received and Pledges Made as of February 28, 2023 (US\$)



Source: World Bank.

Funding Cycle

In its first year of implementation, the Risk Finance Umbrella Program allocated a maximum \$150,000 of grant financing to each country project. Going forward, in line with its new strategy, the RFU Program will fund fewer but more in-depth projects.

Grants in this report are active projects with funding allocations, disbursements, and commitments. Currently, there is a total of 13 grants, with a total allocation of \$2.33 million (see table 1). A total of \$500,000 was allocated to the Global Risk Finance Programmatic Advisory Services and Analytics (PASA – see annex 3) program. This program implements global engagements supported by the RFU Program Fund and complements country work implemented by regional teams.

¹ SECO contributions are paid in Swiss francs and converted into US dollars.

Table 1:**RFU Allocations, Disbursements, and Commitments by Grant as of February 28, 2023 (US\$)**

TF#	Grant Name	Country/ Regional/ Global/ Program Management	Donor	Allocated	Disbursed	Committed	Balance
TF0B9616	Global Risk Finance	Global knowledge management	SECO	500,000.00	29,161.02	23,335.00	447,503.98
TF0B9876	Indonesia—Global Risk Finance	Indonesia	SECO	100,000.00	1,231.62	7,059.00	91,709.38
TF0B9633	Strengthening Financial and Fiscal Resilience in South Africa	South Africa	SECO	130,000.00	31,291.88	28,542.87	70,165.25
TF0B9795	Disaster Risk Finance in Albania	Albania	SECO	100,000.00	29,582.37	17,353.47	53,064.16
TF0B9835	Disaster Risk Finance and Insurance in Peru	Peru	SECO	50,000.00	45,382.73	4,215.00	402.27
TF0B9852	Disaster Risk Finance and Insurance in Colombia	Colombia	SECO	150,000.00	75,696.85	25,415.83	48,887.32
TF0C0032	Georgia Sovereign Disaster Risk Finance	Georgia	SECO	100,000.00	27,470.11	22,525.06	50,004.83
TF0C0345	Nepal Disaster Risk Finance	Nepal	SECO	100,000.00	5,494.92	3,604.36	90,007.72
TF0C0132	Financial Resilience Programmatic Approach	Angola, Burkina Faso, DRIVE (Ethiopia, Kenya, Somalia), Niger, Uganda	USAID	600,000.00	96,320.88	181,664.36	322,014.76
TF0B9701	Disaster Risk Finance Solutions in Central America	Central America (El Salvador, Honduras, Guatemala)	USAID	200,000.00	49,743.34	93,815.00	56,441.66
TF0B9714	Monitoring, Evaluation, and Learning (MEL)	Program Management	SECO USAID	75,000.00	7,221.00	24,751.50	43,027.50
TF0B9749	Program Management and Administration	Program Management	SECO USAID	150,000.00	45,877.56	-	104,122.44
TF0B9763	Communications and Outreach	Global	SECO USAID	75,000.00	-	-	75,000.00
Total				2,330,000.00	444,474.28	432,281.45	1,453,244.27

Source: World Bank.

Note: SECO = Swiss State Secretariat for Economic Affairs; USAID = United States Agency for International Development. The following projects did not request additional funding from the RFU Program during the reporting period, but plan to do so in the next reporting period: Morocco, Serbia, Tunisia, Vietnam, and Zimbabwe.

a. This trust fund finances the following knowledge sharing projects: Financial Resilience Awards and TEDx series; centers of learning and a training-the-trainers program; webinars for agricultural programs; global study of disaster-related budget reallocation practices and resilient budgeting framework; the crisis preparedness playbook; and management of credit risks when lending to SMEs in the agricultural sector.

ANNEX 2:

Country and Regional Projects

AFRICA: EASTERN AND SOUTHERN

Angola

- Completed a disaster risk finance diagnostic
- Prioritized risk finance as part of the World Bank Country Climate and Development Report, which guides lending operations and long-term development planning
- Used diagnostic findings to design potential World Bank investments—one to strengthen the resilience of micro, small, and medium enterprises (MSMEs) and one to expand a social protection system for people affected by drought

South Africa

- Launched disaster risk finance diagnostic with government counterparts and supported the government in implementing its findings
- Launched the FinTech Challenge to crowdsource low-cost, high-impact ideas for savings products and insurance and risk transfer products, and to help small and medium enterprises (SMEs) access risk finance products

Zimbabwe

- Continued work on a disaster risk finance diagnostic, which will be used to inform the Zimbabwe Country Climate and Development Report
- Held joint World Bank–African Development Bank training and knowledge-exchange workshop on the fundamentals of disaster risk finance, risk finance instruments, and public asset insurance

AFRICA: WESTERN AND CENTRAL

Niger

- Provided technical assistance that advanced a risk analysis, the design of an agricultural insurance product, and a framework for strengthening governance and institution
- In collaboration with the government, launched an agricultural insurance market feasibility study

Sahel

- Completed a policy note based on a feasibility study that showed index-based drought insurance for pastoralists could be implemented in Burkina Faso, Mali, Niger, and Senegal, where an estimated 50 million people rely on pastoralism for their livelihoods
- Used study findings in the World Bank’s economic updates for each country

EAST ASIA AND PACIFIC

Vietnam

- Drafted a review of Vietnam’s agricultural insurance program and held discussions (ongoing) with the government about which options would best support agricultural risk financing in the Mekong delta
- Held a knowledge-exchange program with other SEADRIF countries and an executive training in Singapore, both focused on public asset insurance
- Continued discussions with the Ministry of Finance about piloting public asset insurance at the subnational level, including for the City of Da Nang

EUROPE AND CENTRAL ASIA

Albania

- Included risk finance reforms in government reform agenda supported by a World Bank development policy loan
- Designed the mandatory earthquake insurance program and prepared it for enactment
- Enacted the decision to include disaster risk assessment as part of government's fiscal risk statement

Georgia

- Quantified disaster-related fiscal impacts, allowing government's fiscal risk statement to account for disaster risk
- Deepened the policy dialogue (on financial resilience against disaster and climate risks, repercussions of the COVID-19 pandemic); started a review of Georgia's agricultural insurance program to identify challenges and next steps

Serbia

- Delivered a tool that quantifies the potential impact of disasters on key fiscal variables and built capacity for using it; the government's fiscal risk statement will account for the implications of potential disasters on Serbia's budget
- Shared relevant good practices and way forward for establishing and scaling up a public asset registry system; the government has already put in place an IT platform for the registry

LATIN AMERICA AND CARIBBEAN

Central America's Northern Triangle (El Salvador, Guatemala, Honduras)

- Prepared a study that assesses scalable disaster risk financing and insurance solutions for smallholder farmers (due to be published by September 2023), which is expected to inform the development of a World Bank lending project and potentially unlock downstream grant funding

Colombia

- Adopted first disaster risk finance strategy (Bogotá)
- Worked to cascade disaster risk finance into transport and other sectors

Peru

- Developed technical assistance program on risk finance that includes initial support for property insurance and public asset insurance

MIDDLE EAST AND NORTH AFRICA

Tunisia

- Updated the database on financial exposure to natural catastrophes, which will also inform the development of the national disaster risk finance strategy

Angola*

Channeling findings from a disaster risk finance diagnostic to better support micro, small, and medium enterprises, and a critical social protection program.

A disaster risk finance diagnostic funded through predecessors of the RFU Program found that flood and drought are the most serious perils in Angola; they adversely affect development and economic growth, and their worst impact is on poor and rural households. While the country has a robust disaster risk management framework, the government has no ex-ante financing instruments that can respond to shocks, and its fiscal risk management frameworks do not explicitly address climate-related risks. Moreover, budget volatility due to oil price fluctuations has limited the government's ability to respond to shocks in a sustainable way. Kwenda, the country's flagship safety net program, is under development and has the potential to provide Angolans with post-disaster financial assistance.

Project update

During the reporting period, a \$40,000 grant from the RFU Program supported the completion of the disaster risk finance diagnostic. The diagnostic contributed to the Angola Country Climate and Development Report, which informs World Bank lending operations and Angola's long-term development planning. Findings from the diagnostic are informing potential investments under two World Bank operations; one strengthens the resilience of micro, small, and medium enterprises (MSMEs), and the other supports Kwenda in scaling up emergency cash transfers to people affected by drought and other shocks.

Lessons learned and next steps

In the medium term, the team will continue its policy dialogue with the new government, with a focus on developing a comprehensive disaster risk finance strategy with the Ministry of Finance. To further integrate the findings of the disaster risk finance diagnostic into Angola's policies, the World Bank team will deliver a training workshop for Ministry of Finance officials and other key stakeholders. The team also plans to use the diagnostic's findings to inform a feasibility study that will assess how to best enhance the resilience of Angola's MSMEs. The study will examine the use of existing risk management mechanisms, such as the credit guarantee fund, and ways to strengthen the capacity of financial institutions to provide more diverse and long-term finance to MSMEs.

Horn of Africa

Improving the financial resilience of pastoralists against drought

Nearly a decade of work to develop the agricultural insurance market in the Horn of Africa has culminated in the World Bank's De-risking, Inclusion and Value Enhancement of Pastoral Economies (DRIVE) project. DRIVE is a \$327.5 million project with \$33 million in trust fund grants that strengthens the financial resilience of pastoralists in Djibouti, Ethiopia, Kenya, and Somalia against drought and better connects them to livestock markets.

Under the Financial Resilience Program, the World Bank team completed analytical and advisory work that has enhanced the relevance and quality of the index-based livestock insurance (IBLI) product, enabled roll out in new areas and strengthened the enabling environment (regulation and sharia compliance). This includes a survey of pastoral groups to better understand their financial needs; an assessment of existing and potential channels for distributing payments from drought insurance and savings products to pastoralists; and technical and advisory notes on creating financial products that are compliant with Islamic principles and values. RFU resources are invested in addressing supply-side constraints, hence complement GSFF resources that are used to address demand-side barriers, predominantly to reduce the cost of the IBLI product (premium subsidies and operational costs of the implementing agency). These investments contributed to reaching the targeted number of pastoralists and enabled progress towards full sharia compliance of IBLI in Somalia.

Project update

During the reporting period, a \$350,000 RFU Program grant funded technical assistance, including training and capacity building of Somalia's newly established insurance regulator, a roadmap to develop the insurance market, an index-based livestock insurance product customization and validation study, and definition of unit areas of insurance in Somalia.

Building on the advisory note that provides guidance on how to create financial products that are compliant with Islamic principles, the team is working with the implementation agent, ZEP-Re, to ensure the integrated package of financial services complies with Sharia. The team also completed a review of the insurance laws and regulations in Ethiopia, Kenya, and Somalia to strengthen the enabling environment for insurance while respecting Islamic takaful principles. As a result of the review, the Somali insurance regulator has drafted a separate takaful-compliant insurance bill, which is expected to be passed into law by June 2023.

A technical review in Kenya of the index-based livestock insurance product led to findings that will also be relevant in Ethiopia and Somalia. These findings highlighted areas for strengthening product design, pricing, and communication. The team also developed an impact evaluation framework to assess the welfare impact of the DRIVE project and inform course correction during the project's duration

Lessons learned and next steps

Between March and June 2023, ZEP-Re, the regional reinsurer responsible for implementing the project, will do a full review of the livestock insurance product. In the medium term, this review will help build the capacity of the project implementer and inform discussions on commercial sustainability of the product. This is essential for continued crowding in of the private sector and for mobilizing additional capital. The RFU Program will continue to support institutional and capacity building of the newly established insurance regulator in Somalia, and it

will roll out additional training for takaful operators in Somalia and Ethiopia. To meet the needs of milk producers, who are mostly female, the team will support the development of a specialized index-based microinsurance product. These investments continue to complement GSFF funding by addressing supply-side constraints to the uptake of financial services. Overall investments contribute to achieving the project's objectives on reaching more women pastoralists and deepening the financial market to enable a sustainable private sector-driven solution.



South Africa

A new disaster risk finance strategy, with targeted support for small and medium-size farmers

A \$150,000 grant from the RFU Program is accelerating the risk finance agenda in South Africa and supporting the World Bank's broader financial sector engagement in the region with Botswana, Eswatini, Lesotho, and Namibia. The World Bank has completed a disaster risk finance diagnostic, which will guide further technical assistance provided through the RFU Program, and an agricultural insurance policy note on the cost and feasibility of setting up a public-private partnership to implement agricultural insurance for small and medium-size farmers. Based on these engagements, South Africa is developing a national disaster risk finance strategy with several measures that may be incorporated into the World Bank development policy operation currently under preparation.

Project update

During the reporting period, the team advanced work in three key areas. After launching the disaster risk finance diagnostic with government counterparts in November 2022, the World Bank team began supporting the implementation of its findings. Priorities include developing a disaster risk financing strategy and strengthening the PFM system to ensure a timelier response to climate shocks. The team continues to hold extensive stakeholder engagements to advance the agricultural insurance pilot. Finally, the team launched a FinTech Challenge in 2022 to crowdsource low-cost, high-impact ideas for the low- and middle-income market segment. The challenge will have three windows: one focused on savings products, one on insurance and risk transfer products, and a third on helping SMEs access finance products.

Lessons learned and next steps

The team has identified two areas for enhancing disaster risk finance engagements. First, capacity building at the municipal level is critical. Capacity deficiencies have underpinned inadequate responses to major climatic shocks; even when funds are available, the capacity to utilize them is often low. Second, strengthening coordination between national and municipal governments enables a timely response to disasters, facilitating the rapid disbursement of emergency funds. The World Bank continues to provide technical assistance in these areas and is specifically addressing the need for more coordination between levels of government in updating the protocol for funding arrangements in South Africa's disaster risk management framework.

Uganda

Linking disaster risk finance to existing social protection systems

With a grant from the Financial Resilience Program (the predecessor trust fund), in 2022 the World Bank team completed a disaster risk finance diagnostic that guides Uganda's efforts to strengthen financial protection for the government and its population. The diagnostic highlighted three areas of focus: developing a registry to identify vulnerable groups, making the mechanisms used to send emergency funds to people more robust and efficient, and expanding the number and size of risk financing options for government response to shocks.

Project update

As mentioned above, the team used funds from the Financial Resilience Program to complete activities during the reporting period. Because the project is at design stage and thus not yet effective, the team did not request funding from the RFU Program. The team incorporated the diagnostic's findings, including identification of perils with the greatest impact, into the World Bank-funded \$250 million Northern Uganda Social Action Fund (NUSAF) project. The project focuses on enhancing shock-responsive social protection mechanisms and creating jobs. The diagnostic's findings were also included in the World Bank Crisis Preparedness Gap Analysis, a key analytical product that informs planning in fragile and conflict-affected situations.

To further support the project, the team helped design the shock-responsive safety net component that will provide emergency funds to transitory poor households, protecting them against food insecurity. The shock-responsive safety net for drought will be scaled up from 8 to 20 districts and, for the first time, provide financial assistance in the event of flood. In addition, the team provided training to 65 key decision-makers from the public and private sector and to stakeholders working with other development partners in Uganda.

Lessons learned and next steps

Coordinating with the World Bank's recently established Climate Finance Unit has helped advance policy dialogue on disaster risk finance in Uganda, as the overlap between the two agendas has resonated with the Ministry of Finance and Economic Development. Conducting a validation workshop with stakeholders before finalizing the disaster risk finance diagnostic brought more buy-in from the private and civil society sectors. However, the World Bank team needed to conduct a series of additional policy and technical engagements to ensure the diagnostic's findings applied to the disaster risk finance and social protection priorities identified by the government.

In the reporting period, the RFU Program supported the design of the shock-responsive subcomponent of the NUSAF project; this included developing a trigger mechanism and strengthening the policy environment for pre-arranged risk financing linked to social safety nets. Going forward, GSFF resources will be used to support the development of a DRF Strategy, to establish up a sustainable risk layered financing mechanism consisting of contingency funds and a risk transfer solution and to cover the costs of implementing

this mechanism. Contingency funds will be used to mitigate the impact of moderate shocks and risk transfer solutions used for more severe ones. Further analytical support includes actuarial modeling for a risk transfer solution that will be used to replenish the contingency funds in the event of a severe shock. In addition, the lessons learned from piloting the shock-responsive social protection mechanism will be shared with other low-income countries seeking to adopt a similar solution.



Zimbabwe

An inclusive approach to developing a disaster risk financing strategy that builds on a partnership with the African Development Bank

Zimbabwe is highly prone to droughts, floods, tropical cyclones, and epidemics, and climate change is worsening the impact of disasters on households, businesses, and the economy. Zimbabwe is therefore developing a disaster risk finance strategy and implementation plan under the joint leadership of the Ministry of Finance and Economic Development and the Civil Protection Unit, and in close consultation with the insurance and banking sectors. This work is supported by the RFU Program and complements capacity-building support from the African Development Bank and the Centre for Disaster Protection.

Project update and next steps

A disaster risk finance diagnostic will be completed in June 2023 and used to inform the ongoing Zimbabwe Country Climate and Development Report. The World Bank and African Development Bank jointly facilitated a training and knowledge exchange workshop in December 2022. The World Bank team provided training on the fundamentals of disaster risk finance, risk finance instruments, and public asset insurance. The workshop was attended by over 50 officials from government, the private sector, civil society, and development partners. In the medium term, the RFU Program will continue to provide technical assistance to support the government in implementing its strategy. This is expected to include support on the design and implementation of a public-private partnership that can provide financial protection to national public assets against the rising incidence of tropical cyclones.



Niger

Developing a market for agricultural insurance

The RFU Program is providing support to Niger through capacity building and technical studies, which are helping develop an agricultural insurance market to meet the significant needs of farmers, financial institutions, and the public sector. The team is providing technical assistance to the National Committee on Agricultural Index Insurance (Comité National sur l'Assurance Agricole Indicielle, or CNAAI) and directly to government through the Ministries of Finance, Planning, and Agriculture. The technical assistance is informing the preparation of a planned World Bank project in Niger that aims to increase value chain competitiveness for the agricultural sector, access to finance, and the country's overall climate resilience.

Project update

During the reporting period, a grant from the RFU Program enabled the team to design a project component for developing an agricultural insurance market and creating an enabling environment linked to credit markets and export-oriented value chains. The team's technical assistance advanced a risk analysis, the design of the insurance product, and a framework for strengthening governance and institutions. Working closely with the CNAAI, the team also launched an agricultural insurance market development feasibility study. Two capacity-building initiatives—one for the CNAAI and one South-South exchange between Senegal and Niger—are deepening understanding of disaster risk finance among key stakeholders.

Lessons learned and next steps

The team has leveraged solid relationships with government, the CNAAI, and other development partners such as the World Food Programme and the United Nations Development Programme. This cooperation has ensured that developing the agricultural insurance market remains a priority, and that ongoing technical assistance sponsored by different partners is complementary, even though the World Bank's planned investment project has been delayed until FY24.

Through the next year, activities will focus on designing a smart premium subsidy scheme, finalizing, and disseminating the feasibility study, developing other focused studies on loss assessment and data gathering, capacity building using agricultural insurance analytical tools, and finalizing a World Bank investment project.

Indonesia

Expanding disaster risk insurance solutions in priority sectors

The World Bank, with support from SECO, has closely partnered with the Indonesian government to develop the National Disaster Risk Finance and Insurance Strategy, and it continues to work with the government to implement the priorities identified in the strategy. These priorities include developing a public financial management (PFM) reserve fund, which has been supported by the Global Risk Financing Facility and a World Bank investment; and developing public asset insurance, with the support of the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). Through its predecessor funds, the RFU Program has coordinated the upstream activities and policy dialogue in these areas. Work is now focused on increasing the financial resilience of firms. In January 2021, the World Bank approved a \$500 million lending operation to support Indonesia's efforts to build and strengthen its financial response to natural disasters, climate risks, and health-related shocks, such as the COVID-19 pandemic. The loan supports establishment of the Pooling Fund for Disasters, which was legally created in August 2021 through a Presidential Regulation.

Project update

An additional \$150,000 RFU program grant supports a new engagement and technical assistance for the Indonesian government, which seeks to explore how to expand or adapt existing disaster risk insurance solutions in priority sectors as outlined in the country's National Disaster Risk Finance and Insurance Strategy. From November

2022 to February 2023, the team took stock of existing disaster risk finance engagements in the agricultural sector (including animal husbandry and fishery), among small enterprises, and among homeowners. The stocktaking exercise is assessing both government-led and market-based programs. With guidance from the Indonesia General Insurance Association, the team has finalized a preliminary collection of data on existing insurance policies and other relevant documents.

Lessons learned and next steps

There is a need to make data and information more readily available to ensure the most effective solutions are being developed and launched. Linking the insurance policies to the National Disaster Risk Finance and Insurance Strategy will further improve their efficacy.

In a next step, the team will review the insurance programs that have been collected to identify challenges, potentials, gaps, and lessons learned in their implementation. A report with recommendations and proposed options for improving insurance programs will be produced by June 2023. The results of the stocktaking exercise will inform policy dialogue between the World Bank team and the Ministry of Finance for advancing the financial resilience of small and medium enterprises (SMEs). Following government consultations, an updated disaster risk finance work plan for the next fiscal year will be developed.





Vietnam

Enhancing disaster risk finance principles at the subnational, national, and regional levels

A grant from the RFU Program is providing capacity building to support Vietnam's disaster risk finance agenda, with a focus on reforms to promote agricultural insurance, improve financial risk management of public assets, and support the local government in Da Nang. These efforts are linked to a larger World Bank financial sector programmatic analytics and advisory program, the Country Climate and Development Report, and engagement with the City of Da Nang.

Project update

The World Bank team has completed the first draft of a review of Vietnam's agricultural insurance program covering the years 2011–20, which was requested by the Ministry of Finance. The World Bank team is reviewing the regulatory framework for the next phase of the pilot program, which will cover the years 2023–25, and it has discussed with the government which options would best support risk financing for agriculture in the Mekong delta, including World Bank financing and domestic and regional disaster risk finance sources.

Although the government decided to postpone implementing a public asset insurance program until 2025, the World Bank team arranged two events focused on public asset insurance: a knowledge-exchange program with other SEADRIF countries and an executive training in Singapore. The team continues its discussions with the Ministry of Finance about piloting public asset insurance at the subnational level, with the City of Da Nang as a possible participant.

Lessons learned and next steps

Among officials in the central and subnational governments, knowledge exchange and capacity building have directly increased interest in and understanding of public asset insurance. Officials are particularly interested in knowledge exchanges with peers from other countries in the region.

In the short term, the World Bank team expects to complete a cost-benefit analysis and a methodology for asset valuation that will be used to launch a pilot program for public asset insurance in select provinces and cities, subject to the authorities' agreement and provision of necessary data. The World Bank team will continue its review of the regulatory frameworks that govern agricultural insurance and create knowledge sharing products based on the findings. Additional capacity building and knowledge exchange on financial protection of public assets and on agricultural insurance will support these efforts.

In the medium to long term, the team aims to advance the implementation of the City of Da Nang's financial protection strategy against disasters and pandemic, which was developed with support from the World Bank–SECO program.

Albania

Toward mandatory earthquake insurance and better integration of disaster risks in government fiscal policy

Since a devastating earthquake in Albania in 2019, the World Bank has worked closely with the government of Albania on disaster risk financing. Funding from the RFU Program's predecessor produced high-quality analytics such as a national-level profile of earthquake and flood risks, an analysis of the impact of COVID-19-related budget reallocations, an evaluation of the financial resilience of Albanian firms to disasters, and a methodology for adapting the country's social protection programs to respond to new crises. The RFU Program continues to enhance disaster risk finance in Albania. The program is now focusing on establishing legal frameworks for a public-private partnership to provide earthquake insurance for households and for better management of government contingent liabilities due to disasters. These activities support the preparation of the World Bank's \$80 million Sustainable Growth Development Policy Financing operation in Albania.

Project update

A \$150,000 RFU Program grant focused on two key workstreams during the reporting period. To further the earthquake insurance product, the RFU grant enabled the team to provide capacity-building activities, advisory services to enhance strategic and technical aspects of the insurance product, and technical assistance to guide the legal reforms needed. The team also assessed how disasters translate into government fiscal risks, resulting in a new mandate

that the Ministry of Finance and Economy issue its fiscal risk statement as a stand-alone document with a section specifically covering natural disasters. Finally, the country's recently adopted Disaster Risk Reduction Strategy, developed by the United Nations Development Programme, benefited from the World Bank team's input.

Lessons learned and next steps

Introducing reforms such as mandatory insurance against earthquakes is a major political undertaking requiring strong government ownership. The team's efforts to share in-depth knowledge of disaster risk finance with the Ministry of Finance and Economy's working group were critical for advancing Albania's reforms. As part of additional capacity building, the Albanian delegation responsible for developing the earthquake insurance law will visit Turkey to learn about the Turkish Catastrophe Insurance Pool and its operations.

In 2024, the Albanian government plans to issue a fiscal risk statement with a section that addresses disaster risks as a contingent liability. The World Bank will assist in preparing this statement by reviewing the assessments that will be done by the National Civil Protection Agency and proposing areas of reform to address any challenges identified. The fiscal risk statement will assist the government in deciding on budget allocations for disaster resilience.

Georgia

Role of green growth in boosting financial resilience and social inclusion across the South Caucasus region

Since 2020, the RFU Program has supported policy dialogue to strengthen Georgia's financial resilience against disaster and climate risks, as well as the repercussions of the COVID-19 pandemic. The RFU Program support is part of a broader World Bank programmatic engagement in the South Caucasus that prioritizes reforms in the financial and private sector, macro-fiscal management, green growth, and resilience.

Project update

A \$150,000 RFU Program grant has helped the government of Georgia better quantify its disaster-related fiscal impacts and issue its second fiscal risk statement, which accounts for the impact of disaster-related spending and risks at the subnational level. For the first time, the national government collected disaster-related data from the subnational governments as part of its regular budgeting cycle. The RFU Program is further supporting the government in developing a national disaster risk framework as part of a series of World Bank development policy loans focused on green, resilient, and inclusive development (GRID). The World Bank team has also reviewed Georgia's agricultural insurance program to understand the policy, institutional, and operational challenges that might affect implementation of this program.

Lessons learned and next steps

Strong analytic tools and capacity-building efforts have helped the government understand the full financial impact of disasters and led to critical policy reforms. Georgia's ongoing engagement with the World Bank through lending operations has provided an important anchor for advancing relevant policy dialogue and reforms.

The government has requested further support to develop and implement its disaster risk strategy framework. During the next reporting period, the World Bank team will focus on the underlying analysis and training needed to support this process, review disaster risk finance in agricultural sector, assess the vulnerabilities of local firms, and provide training on analytics and executive education training.

Serbia

Developing a registry of public assets

The World Bank has a long-standing disaster risk finance engagement with Serbia that has supported the country's development of a national strategy, its quantification of fiscal risks, and the adoption of reforms that paved the way for a CAT DDO. World Bank-SECO program funds were instrumental in Serbia's establishment of a Fiscal Risk Unit as part of the preparation and launch of the CAT DDO. The World Bank team has begun the technical analysis needed to develop a public asset registry and is ready to move forward should the government request it.

Project update

The engagement with Serbia has focused on supporting the government's Fiscal Risk Unit to further assess disaster risk exposure and establish a public asset registry. In December 2022, the team delivered a workshop on use of a tool that quantifies the potential impact of disasters on key fiscal variables. As a result of this training, the government's fiscal risk statement will more fully account for the implications of potential disasters for Serbia's budget. To advance the government's efforts to establish a public asset registry system, the World Bank team has shared relevant good practices and assessed how scaling up the registry could be applied to other disaster risk finance initiatives. In the past year, the Serbian government has procured ArcGIS as a platform for its asset registry and is building some additional analytical capacities into the registry.

Lessons learned and next steps

The team will continue to provide just-in-time support to the Ministry of Finance's Fiscal Risk Unit. This will include additional training and guidance on applying the methodology for assessing disaster risks to the fiscal risk statement. The team also continues to explore opportunities for supporting this work under a World Bank investment project, which would be done in collaboration with other World Bank units.



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Central America's Northern Triangle

Building the financial resilience of smallholder farmers in El Salvador, Guatemala, and Honduras

A 2017 World Bank study ranked Guatemala's socioeconomic resilience to disaster-related asset losses as the lowest in the world. The agricultural sector, which is highly exposed to climate variability and natural disasters, is a key source of income and food security for poor and vulnerable populations in Guatemala and Central America's other Northern Triangle countries, El Salvador and Honduras. The region is also one of the most vulnerable in the world to the impacts of climate change, with smallholder farmers and low-income households at the forefront of the crisis. The World Bank has been in discussions with national governments and international development partners to create a public-private partnership that would improve the financial security and resilience of smallholder farmers in the region. In November 2022, the Partnership for Central America, the World Bank, and the United Nations World Food Programme launched the Disaster Risk Insurance and Finance in Central America Consortium at COP27. The consortium's goal is to identify and support climate-related disaster risk insurance and finance solutions that increase the financial resilience of vulnerable populations against climatic disasters as part of broader financial inclusion efforts.

Project update

A \$200,000 RFU Program grant is funding a diagnostic study to identify and assess scalable disaster risk financing and insurance solutions. The team is working closely with national authorities and

collaborating with other development partners including the World Food Programme. The diagnostic is at the stakeholder technical consultation stage, with the report due to be completed in July 2023 and published by September 2023.

Lessons learned and next steps

The team has identified two areas critical to the project's progress thus far. First, disaster risk finance initiatives require coordination across multiple sectors within a country, such as agriculture, risk management, social protection, and the financial sector. While a multisectoral approach promotes inclusive development, it needs to be coupled with strong buy-in and leadership from ministries of finance to ensure the agenda advances. Second, as potential beneficiaries, different groups of farmers have different needs that must be recognized and understood.

This is the first of an envisaged three-phase approach to implement large-scale disaster risk finance solutions in the region. Pending sufficient government buy-in for the proposed disaster risk finance solutions in Phase 1, the project will proceed to Phase 2 to develop a program and implementation plan, and then phase 3 to launch and scale up the solutions. The RFU Program will provide funding for further technical and analytical support for Phase 2 and Phase 3. This upstream technical assistance is expected to inform larger downstream investment, including a possible World Bank lending operation.



Colombia

Strengthening the link between national, subnational, and sectoral risk finance strategies

Over a decade ago, Colombia set its sights on significantly increasing its financial resilience to disasters and climate shocks and has since worked toward this goal with support from the World Bank–SECO program. The country was the first in the world to roll out a disaster risk finance strategy that integrated subnational and sectoral plans into the national strategy. With the program's support, the government built a comprehensive risk layering approach to address immediate, medium-term, and long-term post-disaster funding needs. This layering consists of several instruments: the National Fund for Disaster Risk Management and regular budget reallocations; a Catastrophe Deferred Drawdown Option (CAT DDO) (Colombia has used three previous CAT DDOs since 2012 and disbursed all associated funding); a \$400 million catastrophe (cat) bond that was not renewed in 2021 due to the fiscal impact of the COVID-19 pandemic; and \$40 billion in indemnity insurance coverage for highways built through public-private partnerships (PPPs).

Project update

Building on the achievements of the previous phase, a \$150,000 grant from the RFU Program continues to support the expansion and integration of Colombia's disaster risk finance initiatives, including addressing gaps identified in the 2021 Financial Sector Assessment Program framework.

The government has begun cascading disaster risk finance initiatives from its national strategy into key economic sectors, including transportation, agriculture, and mining, and energy.

During the reporting period, the World Bank team worked with the government to prepare a fourth CAT DDO; the previous (third) CAT DDO disbursed \$300 million in November 2022 during the rainy season. At the subnational level, technical assistance helped the Archipelago Department determine which insurance products offered through the Caribbean Catastrophe Risk Insurance Facility (CCRIF) would be most appropriate, and Bogotá adopted its disaster risk finance strategy. At the sectoral level, the team is supporting the Transport Ministry in enacting a disaster risk finance policy for the transport sector.

Lessons learned and next steps

As one of the World Bank's lengthiest disaster risk finance engagements, Colombia has served as a blueprint for responding to the complex challenge of how to buffer a country from the financial impact of disasters and other crises. The country has created a tightly woven net of financial resilience by augmenting its national disaster risk finance strategy through links to initiatives at local levels of government and within key sectors.

To help the government increase the number of available disaster risk finance instruments, the World Bank team will support the government in (i) developing prototypes of additional sovereign risk transfer instruments for floods and earthquakes; (ii) developing insurance solutions for households; (iii) strengthening public asset insurance, including existing national-level schemes; (iv) evaluating insurance schemes for the transport sector; and (v)

assessing what parametric insurance policies offered by the CCRIF would be most appropriate for the Archipelago Department.

To help promote the long-term sustainability of disaster risk finance in the country, Colombia is also considering developing a regional learning hub that can serve as a resource for South America.





Peru

Providing long-term support for an evolving disaster risk finance agenda

The World Bank has been supporting Peru's disaster risk finance agenda since 2012. Funding from the World Bank–SECO program helped develop the National Disaster Risk Management Plan 2014–2021, which promoted the transfer of risk to the private sector financial. In 2018, Peru joined Chile, Colombia, and Mexico to issue the \$1.36 billion Pacific Alliance catastrophe bond for earthquake risk, with Peru's coverage set at \$200 million. When an 8.0 magnitude earthquake hit Peru the very next year, the cat bond paid out \$60 million. The Pacific Alliance countries are now analyzing the potential for issuing another risk transfer instrument that would address hydrometeorological or multiple perils.

Funding has strengthened financial protection for PPPs and public asset insurance by improving Peru's legal and regulatory environment. In 2019, based on the World Bank–SECO program's recommendations, the Ministry of Finance included insurance in its guidelines for designing PPP contracts. Finally, the World Bank–SECO program has provided ongoing support to the Superintendence of Bank, Insurance, and Pension in assessing necessary risk reserves, with the government issuing the Regulation for the Constitution of the Catastrophic Risk Reserve and a related technical note in December 2021.

Project update

The RFU Program supports Peru with technical assistance to update its disaster risk finance strategy, ensuring it reflects the country's current risk profile and recent institutional and political changes. Since the earthquake cat bond expired in February 2021, Peru has expressed interest in a new bond issuance for both earthquake and flood risk. The World Bank team's technical analysis will evaluate the feasibility of such a bond as part of the update to the 2016 strategy.

During the reporting period, the World Bank team worked with the Ministry of Finance on a new technical assistance project that focuses on disaster risk finance capacity building and risk analytics, with discussions centering on revising the work plan and securing data to update the risk financing tool. Some preparatory work has also been done to revise the 2016 disaster risk financing strategy. The team also started supporting Peru's General Directorate of Supply in the Ministry of Finance to strengthen the country's movable and immovable property insurance.

Lessons learned and next steps

The team will support Peru in advancing the disaster risk finance agenda once the country assumes the Pro Tempore Presidency of the Pacific Alliance. The seismic cat bond that was placed in 2018 and the analysis of a hydrometeorological or multiperil

risk transfer instrument within the Pacific Alliance framework have demonstrated the benefits of implementing regional initiatives.

In the next reporting period, the team will continue its support to the Peruvian government to update and implement the national disaster risk finance strategy, evaluate new potential risk transfer instruments, update the cost-benefit analysis tool, and strengthen public asset insurance.

The team is also exploring synergies with the Global Program for Debt and Risk Management financed by SECO. One possibility is to issue a sustainability-linked bond with risk transfer protection that would allow the country to continue making its debt repayments in the event of a disaster. This ability would minimize the need to restructure the debt portfolio.



Morocco

Expanding the country's disaster risk finance strategy to cover new risks and assets

The World Bank–SECO program has supported disaster risk finance initiatives in Morocco since 2015, contributing to the development of Morocco's dual public-private protection mechanism. This mechanism offers public and private insurance schemes, and it provides coverage through the Solidarity Fund to those who are not covered by the mechanism's private insurance. A World Bank Program-for-Results (PforR) operation and a CAT DDO support the mechanism. These activities have created a stronger enabling environment for disaster risk finance in Morocco, and the country has adopted other risk retention and transfer instruments that cover earthquakes and floods and protect buildings and vehicles.

Project update

During the reporting period, the World Bank team continued its dialogue with the Moroccan government to establish future disaster risk financing needs, including greater protection for the agricultural sector, and to increase coordination of activities across the government's disaster risk finance initiatives. The project did not request additional funding during the reporting period; however, the team will request funding in the next reporting period so that it can work with the government to refine its disaster risk finance strategy and ensure it is well suited to address the complex challenges Morocco faces.

Lessons learned and next steps

RFU Program funds will provide operational support and in-depth risk analyses to the government so that it can expand insurance coverage efficiently: improved drought coverage for farmers; extended scope to include critical infrastructure; and support the development of an updated disaster risk financing strategy to consolidate the new activities and expansions within a sustainable framework.

RFU program funds will complement other activities funded by other sources. The technical analyses for drought risk and index insurance feasibility are supported by funds by the Global Index Insurance Facility, while GSFF is funding an IPF Small Grant Operation that includes developing flood and drought models that account for climate change and placing a sovereign flood insurance parametric product.

This work will be done in conjunction with the World Bank's Agriculture Global Practice and Urban, Disaster Risk, Resilience, and Land Global Practice. World Bank financing will support the government in creating an interministerial committee that will reform existing drought insurance schemes so that they offer better protection to vulnerable farmers; the committee is expected to begin work in November 2023. Additional financing from the GSFF will increase the Solidarity Fund's technical, operational, and financial capacity.

Tunisia

Replicating regional successes using disaster risk finance mechanisms to strengthen financial protection

In 2019 the World Bank–SECO program began funding disaster risk finance work in Tunisia as part of the broader World Bank PforR loan on Integrated Disaster Risk Management and Resilience. This followed on the heels of the program’s success in Morocco. Additional RFU Program funding support will go toward the loan component that aims to strengthen financial protection.

Project update

The team did not request additional funding from the RFU Program during the reporting period. However, the World Bank continued supporting the government in implementing the PforR loan.

An October 2022 Ministerial Order established a public-private steering committee to supervise the preparation and implementation of Tunisia’s disaster risk finance strategy. The World Bank team contributed to an 18-month roadmap that lays the groundwork for the national disaster risk strategy. In addition, the World Bank team worked with the Ministry of Finance to update its database on financial exposures to natural catastrophes, which will also inform the development of the national strategy.

In parallel to work on the national disaster risk finance strategy, the government can further develop the insurance market in Tunisia by updating the insurance code and developing actuarial modeling. The World Bank team recently supported the insurance regulator in efforts to procure a consulting firm that would prepare the actuarial model needed for a natural catastrophe insurance product. The first phase of this work is focused on model specification and includes (i) identifying capacity gaps in Tunisia’s natural catastrophe insurance market; (ii) specifying technical needs and options for developing an actuarial modeling tool that can inform the development and supervision of the market; and (iii) developing the approach for dissemination of modeling. The second phase will focus on developing the actuarial model.

Lessons learned and next steps

The World Bank team will continue to support the implementation of the PforR, providing technical assistance under the RFU Program to complement similar ongoing activities. In addition to advancing the national disaster risk finance strategy and developing the insurance market for products that cover natural disasters, the World Bank team will support the design and implementation of a public risk financing mechanism.

Nepal

Protecting critical schools, hospitals, and other public assets from natural disasters

Since 2018, the World Bank has supported Nepal in developing an agenda on disaster risk finance, including the development and implementation of its National Disaster Risk Finance Strategy. Earlier funding of approximately \$310,000 was provided by the World Bank-SECO program and financed activities to manage contingent liabilities for natural disasters, which would strengthen Nepal's public financial management. Financing also supported market development to increase the uptake of insurance within Nepal so as to provide greater protection against the financial impact of natural disasters

The RFU Program will provide a total of \$450,000 to be disbursed over a period of four years to support continued disaster risk finance activities in Nepal. These activities are contributing to the broader program of work under the World Bank's Finance for Growth Development Policy Credit and to the Inclusive and Resilient Finance Program in Nepal, which is currently in the World Bank's 2024 project pipeline.

Project update

During the reporting period, the team supported the Nepal Insurance Association in efforts to amend the Property Insurance Directive to include risk-informed pricing for flood for commercial, industrial, and public assets. It is expected that the new rates, once developed, will come into effect by July 2025. As part of this work, the team also commissioned the development of a national flood model that will inform the risk-informed rates. To further protect public assets, the team worked with the government to ascertain the quality of relevant data and the value of the country's public assets. The team also reached an agreement with the Financial Comptroller General Office on the scope of a valuation model for schools and hospitals. Without such a valuation framework in place, these assets will likely be underinsured. Finally, the team has considered how to incorporate these valuations into the Public Asset Management System and to link them to the country's disaster management information system. Disaster risk finance activities funded by the RFU Program complemented a feasibility analysis, which was supported by the Global Risk Financing Facility and completed during the reporting period. The feasibility analysis laid the groundwork for developing a sovereign risk transfer product and an insurance facility to protect public assets, particularly schools and hospitals, against flood risk.

Lessons learned and next steps

Further discussions with the Ministry of Finance will help identify a dedicated government counterpart responsible for future insurance or cat bond policies. This will be augmented by additional capacity building focused on insurance and catastrophe risk modeling, which will target stakeholders in government and the private sector. The CMU for Nepal initiated the Nepal: Resilient and Inclusive Finance Program, and funding from the RFU Program will be used to support this work.

In the coming year, the team will further develop the national flood model, risk-informed pricing, the valuation framework for public assets, a training plan for additional capacity building, and a grant proposal for consolidating and supplementing the country's public asset data. The team will continue discussions with the Ministry of Finance about a sovereign risk transfer instrument.



ANNEX 3:

Global Initiatives and Knowledge sharing Projects

The Global Risk Finance Programmatic Advisory Services and Analytics (PASA) aims to improve the analytical, policy, and knowledge management solutions in risk finance to support country operations and policy dialogues on financial resilience in low- and middle-income countries. The Global Risk Finance PASA translates country experiences into global knowledge for a wide range of stakeholders. A grant of \$500,000 has been allocated for these activities, including the knowledge sharing projects described below. In the next reporting period, as the RFU Program evolves, work under the PASA will further support global policy dialogue and help countries respond more quickly to new challenges through just-in-time advice.

1. Financial Resilience Awards and TEDx series

The Financial Resilience Awards and TEDx resilience program will showcase case studies and best practices for increasing financial resilience to climate and disaster risks. The awards will recognize innovative projects within the World Bank Group and partner organizations that have contributed to building financial resilience in governments around the world. A technical showcase that illustrates the scope and impact of the awarded projects will accompany the awards, while also providing an opportunity to build stronger relationships within the disaster risk finance community.

The license for the TEDx program is currently pending; once received, the program will be completed by calendar year 2023.

2. Creating centers of learning and a training-the-trainers program

A flagship training-the-trainers program will bring together stakeholders for a week-long immersive program where they improve their disaster risk financing training skills. Participants can expect to gain new perspectives, develop actionable plans, and receive one-on-one coaching from technical experts, donors, and peers. The program will provide potential trainers with the tools to create comprehensive financial protection training plans, instructional manuals, and resources that they can draw upon professionally and personally.

The training program will be complemented by regional centers of learning that provide a space for continuous learning and capacity building. At the centers, participants can share experiences, exchange knowledge, and receive training on cutting-edge technologies and approaches. During the reporting period, three partners have been identified to set up centers of learning in the regions:

- The **Frankfurt School of Finance and Management** will serve as a key partner to pilot the first training-the-trainers program, scheduled for fall 2023 in Frankfurt. Terms of reference have been created and discussed with the university.
- The **National University of Singapore** will develop and deliver a training-the-trainers program focused on World Bank Group task team leaders and relevant stakeholders in the region.
- The **National University of Costa Rica** and the World Bank Group have prepared a memorandum of understanding to create a center of learning and academic partnership focused on disaster risk finance. The first program is scheduled for May 2–6, 2023.

3. Webinars to assist governments in developing disaster risk financing for agricultural programs

The RFU program is supporting a webinar series for government officials and practitioners on how to develop and use financing mechanisms and instruments to better protect the agricultural sector from climate and disaster risks. The series assists government ministries that want to establish, evaluate, and implement disaster risk financing principles as part of their agricultural strategies. The first run of the series reached an audience of more than 2,500 in more than 50 countries.

During the reporting period, the team began preparing two additional webinar series that build on the success of the earlier program. One will focus on Africa, with four webinars followed by a two-day in-person meeting. The other will focus on East Asia and will culminate in a three-day in-person meeting on a topic developed in collaboration with the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). The webinars are essential for reaching those who may not be able to attend the in-person training-the-trainers programs.

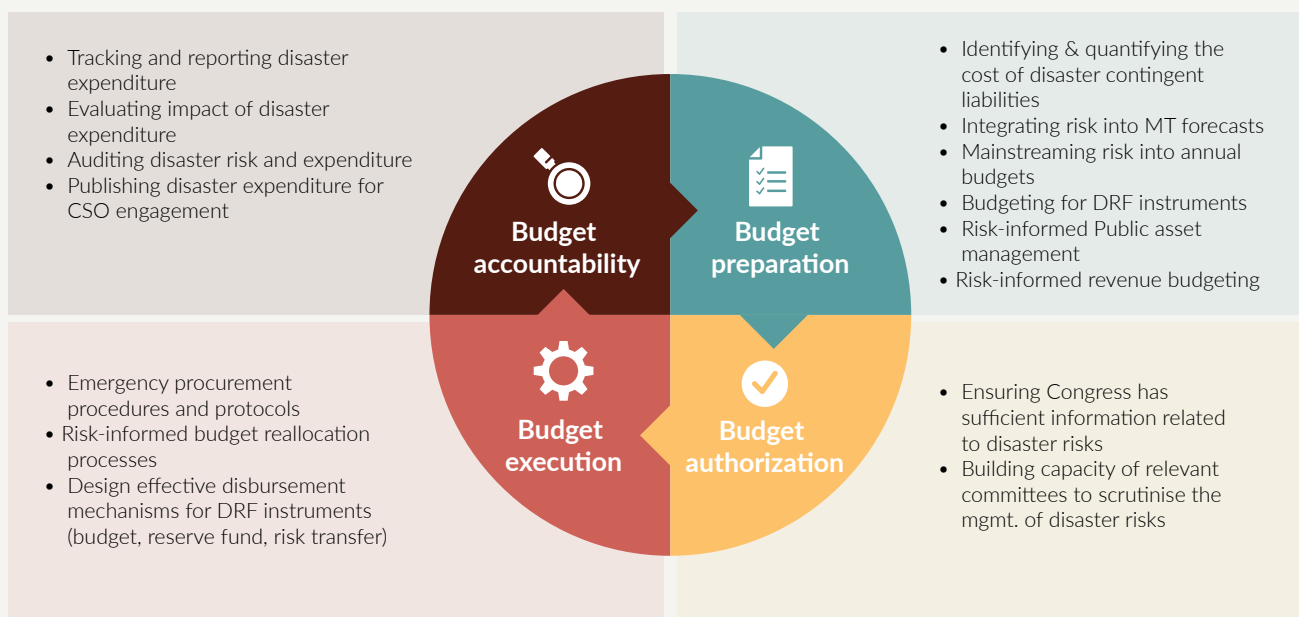
4. Public financial management of disasters

The RFU Program has supported the conceptualization of a study on disaster risk-based budgeting (dRBB) that will explore how disaster risk considerations can be embedded in the government budget cycle. The study will introduce the concept of dRBB, detail how disaster risk can inform national budget processes, present some country experience, set out how RBB can be integrated into national DRF strategies, and distil key takeaways.

This study will comprise four phases of budgeting:

- (1) **Strategic planning:** Where the study will explore, for instance, costing of disaster measures and cascading these plans into sectoral plans and DRF strategies which are linked with annual budgets.
- (2) **Preparation and approval:** Where the study will explore, for example, assessment of contingent liabilities, budgeting for DRF instruments, and public asset management.
- (3) **Implementation:** Where the study will look at strengthening budget disbursement mechanisms for DRF expenditure, risk informed budget reallocations, emergency procurement procedures and protocols, and other topics.
- (4) **Monitoring:** This will include tracking and reporting disaster expenditure and public expenditure reviews.

The study will offer some reflections on how to select appropriate entry points, based on the Government's specific objectives, and how to operationalize the proposed considerations and identify areas for further research.



5. Managing credit risks when lending to SMEs in the agricultural sector

Lessons emanating from World Bank projects in Burkina Faso and Rwanda are informing a study that examines how financial institutions manage credit risk when shocks impact their agricultural lending portfolios. Findings from the study will be incorporated into a technical report on the agricultural sector that identifies reforms for credit guarantees and other risk management tools. Report findings will also inform policies in World Bank client countries and the design of World Bank operations aimed at unlocking lending to households and small and medium enterprises (SMEs).

A \$155,000 grant from the RFU Program has enabled the team to conduct the analytical work that is the basis for the report. In Rwanda, the analysis was included as part of the World Bank’s technical assistance package for the National Bank of Rwanda. In February 2023, with support from the National Bank of Rwanda, the team conducted interviews with five financial institutions and confirmed their interest in participating in the analysis. The National Bank of Rwanda is expected to issue an official letter to these institutions to gather their data. In Burkina Faso, the analysis supports the World Bank’s financial sector work. The team identified target financial institutions and will interact with them in May 2023. A second edition of the study will be considered, focusing on other SME subsectors like tourism and light manufacturing.

ANNEX 4:

Regional Risk Pools

Pacific Catastrophe Risk Assessment and Financing Initiative

The Pacific Island countries are among the top-30 nations in the world most vulnerable to natural hazards, including climate-related hazards that are increasingly a threat to small island states. Subject to tropical cyclones and drought in addition to volcanic eruptions, earthquakes, and tsunamis, the Pacific Island countries suffer average disaster damage of more than \$280 million per year.

The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) laid the foundation for a sovereign catastrophe risk pool, the Pacific Catastrophe Risk Insurance Company (PCRIC), that offers climate and disaster insurance and has been delivering World Bank-executed technical assistance to both PCRIC and member countries to strengthen financial preparedness for disasters.

The PCRAFI Multi-Donor Trust Fund (MDTF) has supported two main work tracks: helping Pacific Island countries access affordable climate and disaster risk insurance through a regional catastrophe risk pool; and providing governments and other stakeholders with related technical assistance. The technical assistance has focused on developing and implementing disaster risk finance strategies, collecting data that allow countries to better quantify and model their risks, developing social protection mechanisms that trigger in response to disasters, and developing the catastrophe insurance market.

World Bank-executed activities

Support to Tonga to implement its National Climate and Disaster Risk Finance Strategy. Using PCRAFI financing, the World Bank assisted the government of Tonga in developing its strategy; analysis and advisory services led to the reform of Tonga's National Emergency Fund, a review of available financing instruments, and a new adaptive social protection program.

Pacific Risk Information System. This regional database covers assets such as housing and public infrastructure that are exposed to disasters. The World Bank team helped build the database, trained government officials on data collection to help maintain it and completed cases studies for local risk assessments.

Support to PCRIC. The World Bank provided PCRIC with technical assistance to facilitate its transition to a so-called segregated cell company. A review by Oxford Policy Management provided information on PCRIC's organizational setup, operating mode, and prospects for long-term sustainability.

Recipient-executed activities

Now that PCRIC is fully operational, the company has made significant advances to revamp the catastrophe model underlying its products and is developing a new excess rainfall and drought product. The issuance of season 10 policies to the Cook Islands, Samoa, and Tonga and portfolio management were undertaken entirely by PCRIC.

Southeast Asia Disaster Risk Insurance Facility

Established in April 2017 with funding from the Ministry of Finance of Japan, the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) program is a multi-donor trust fund that increases the financial resilience of Southeast Asian countries against natural disasters, in part by increasing their capacity to meet post-disaster funding needs. Cambodia, Indonesia, Japan, Lao People's Democratic Republic, Myanmar, and Singapore created SEADRIF in December 2018 as a platform for technical and financial solutions as well as knowledge and capacity-building services to strengthen member's financial resilience and reduce the financial protection gap in the region. The Philippines joined SEADRIF in 2019, and Vietnam joined in 2022.

World Bank-executed activities

SEADRIF funds two streams of technical assistance provided by the World Bank. At the regional level, the SEADRIF technical assistance program provides analytical, advisory, and convening services to SEADRIF and ASEAN+3 (Association of Southeast Asian Nations plus China, Japan, and Republic of Korea) member countries; these services focus on strengthening institutions, disaster risk finance policies, and financial instruments. Additional targeted support for member countries helps them explore potential solutions that link them to SEADRIF products and services.

Regional-level activities include the following:

Regional catastrophe risk pool. The World Bank provided extensive support for the development and implementation of the regional catastrophe risk solution for Lao PDR. It also provided substantial input to help the SEADRIF Company finalize its product offerings, structure the placement with reinsurance markets, dialogue with market counterparts, and implement the final products. The World Bank team also supported member countries in preparing for purchase of coverage from the SEADRIF Company and during product implementation.

Flood risk model and monitoring tool. In conjunction with a consortium of technical organizations, the World Bank developed a flood risk model and monitoring tool that analyzes and estimates flood losses. This was used to design and implement the catastrophe risk pool. The first version of the model was completed in 2019 as the first public good offered by SEADRIF.

Public asset financial protection program. This program delivers end-to-end on-demand technical support and capacity building for SEADRIF countries seeking to design, develop, deliver, and renew financial protection solutions. The program launched a country diagnostic for public assets in Indonesia and created the SEADRIF library in December 2022 to facilitate government officials' direct access to experts on financial protection of public assets.

Regional capacity-building program. Drawing on cross-regional experience and knowledge, the program will provide targeted capacity building to equip member countries with the knowledge and skills to establish national financial protection strategies and develop suitable disaster risk finance instruments for their specific demands. Through the program, the World Bank delivered a disaster risk finance executive education program in August 2022. A planned domestic catastrophe risk insurance market development program will improve access to and use of disaster risk insurance, strengthen the domestic supply capacity for disaster risk insurance, and harness technology for developing the catastrophe risk insurance market.

Advancing the ASEAN+3 disaster risk finance agenda. The World Bank has facilitated knowledge exchange on issues requested by members, including agriculture insurance, catastrophe bonds, leveraging of technology, and preparation of an action plan for a new disaster risk finance initiative that will be endorsed by the finance ministers of ASEAN+3 countries. .

National-level activities include the following:

The World Bank team provided technical assistance to **Cambodia** and **Lao PDR** to develop and implement the disaster risk financing policies and strategies they needed in order to join SEADRIF.

In **the Philippines**, the World Bank team helped establish a catastrophe insurance facility by designing related reforms; additional reforms targeted agricultural insurance and financial management of public assets as part of World Bank development policy lending.

In **Indonesia**, the team is helping the government scale up the state asset insurance program to include additional assets at the national and subnational levels and to deliver capacity-building programs.

In **Vietnam**, the team worked with the government to review the country's agriculture insurance programs and explore options at the subnational level in the City of Da Nang.

Recipient-executed activities

A grant from the SEADRIF MDTF supported technical assistance for a disaster risk finance component of the World Bank's Southeast Asia Disaster Risk Management project in Lao PDR. The project also includes a component to allocate a \$5 million IDA (International Development Association) credit for the payment of insurance premiums to SEADRIF.¹ Key activities include setup, capitalization, and operationalization of SEADRIF through the transfer of \$12 million from the SEADRIF MDTF to the SEADRIF Trustee and Company. The funding also supports project monitoring and evaluation. The SEADRIF MDTF also provided Lao PDR with a grant to support capacity building in climate and disaster resilience, in part through the participation in SEADRIF. Countries use these grants to enhance their capacity to integrate disaster and climate resilience considerations into their budgets and sectoral investment planning.

² The Cambodia Southeast Asia Disaster Risk Management project (P160929) has a technical assistance component on disaster risk finance, including a feasibility study on a regional catastrophe risk pool like SEADRIF (US\$1 million grant), financed by the Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries.

ANNEX 5:

Results Framework, February 2022–March 2023

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Financial resilience is embedded into macroeconomic policy and the budget cycle			
LTC_01	Enter the number of new or improved budgetary mechanisms in place and operational as a result of your engagement. For projects covering a region, disaggregate by country		
LTC_02	Enter “1” if your project country/countries adopted improved PFM [public financial management] processes as a result of your engagement. PFM processes include fiscal risk management, budget planning, funding allocation, expenditure monitoring or tracking. For projects covering a region, disaggregate by country in Column D.	4	<ul style="list-style-type: none"> Fiscal risk statement (FRS) now includes disaster section (<i>Albania</i>) National operational plan to identify activities funded by insurance payout and flow of funds (<i>Djibouti</i>) Issue of second fiscal risk statement which accounts for the impact of disaster-related spending and risks at the subnational level (<i>Georgia</i>) Supporting government Fiscal Risk Unit in assessing disaster risk and establishment of public asset registry (<i>Serbia</i>)
Improved and inclusive public financial management of disasters, climate shocks, and crises via strengthened legal and regulatory frameworks and enhanced institutional capacity			
IO_01	Enter the number of recommended laws/regulations/amendments/policies your project country/countries adopted related to PFM as a result of your engagement. For projects covering a region, disaggregate by country in Column D.	2	<ul style="list-style-type: none"> Guideline on FRS (<i>Albania</i>) Amended property directive for Nepal Insurance Authority (<i>Nepal</i>)
IO_02	Enter the number of DRF [disaster risk finance] strategies your project country/countries adopted as a result of your engagement. If the DRF strategy considered a gender or other social dimension, list it in Column D. For projects covering a region, list the relevant country in Column E.	5	<ul style="list-style-type: none"> The team is currently supporting the MoF [Ministry of Finance] in updating its DRF strategy (<i>Peru</i>) DRF and CC [climate change] public policy for Bogotá (approved in September 2022) (<i>Colombia</i>) DRR [Disaster Risk Reduction] Strategy adopted World Bank provided inputs on DRF (<i>Albania</i>) National DRF Strategy & Implementation Plan for National DRF strategy (<i>Nepal</i>)

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Governments access and use market-based risk finance and insurance solutions to reduce financial protection gaps from disasters, climate shocks, and other crises			
LTC_03	Enter the number of new or improved risk transfer mechanisms in place and operational in your project country/countries as a result of your engagement. List the type of risk transfer mechanism in Column D. For projects covering a region, list the relevant country in Column E.	2	<ul style="list-style-type: none"> Sovereign climate insurance cover against flood and drought risk (<i>Djibouti</i>) Index-based livestock insurance (<i>Kenya and Somalia</i>)
LTC_04	Enter the total amount (in US\$) of (re) insurance capacity that countries have leveraged as a result of your engagement (e.g., sum insured, cat bond coverage). For projects covering a region, disaggregate by country in Column D.	21,779,755	<ul style="list-style-type: none"> US\$11,279,755 for Djibouti for 5 years US\$10,500,000 for Kenya and Somalia for the October 2022 season
Improved enabling environment for implementing market-based risk finance and insurance solutions to address shocks and crises			
IO_03	Enter the number of new or improved laws/regulations/amendments/policies adopted that support/enable private sector solutions in your project country as a result of your engagement. For projects covering a region, list relevant countries in Column D.	1	<ul style="list-style-type: none"> <i>Djibouti</i>: National operational plan to identify activities funded by insurance payout and flow of funds
Government agencies, businesses, households, and farmers, including women and vulnerable groups, are covered by and receive pre-arranged finance in a timely, transparent, and safe manner			
LTC_05	Enter the number of people (or farmers, households or businesses) who are benefiting from/have access to pre-arranged financial mechanisms as a result of your engagement. Disaggregate by income and sex in Column D. Indicate the category of beneficiary which you are using in Column E. For projects covering a region, list relevant countries in Column F.	18,666	<ul style="list-style-type: none"> US\$300 million disbursement from CAT DDO [Catastrophe Deferred Drawdown Option] III in Colombia benefited population, but there is not disaggregated information about beneficiaries (<i>Colombia</i>) 18,666 low-income pastoralists, 57% women (HoA [<i>Horn of Africa</i>])
LTC_06	Enter the number of beneficiaries (or farmers, households, or businesses) who have received payouts from pre-arranged financial instruments as a result of your engagement. Disaggregate by income and sex in Column D. Indicate the category of beneficiary which you are using in Column E. For projects covering a region, list relevant countries in Column F.	16,829	<ul style="list-style-type: none"> Low-income pastoralists, 58% women (HoA)
LTC_07	Enter the number of improved sector-specific (e.g., infrastructure, water, social protection, etc.) pre-arranged financing instruments in place and operational in your project country/countries as a result of your engagement.		

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Strengthened financial disbursement mechanisms that more efficiently and inclusively channel disaster finance directly to government agencies, businesses, households, and farmers			
IO_04	Enter the number of new or improved sector-specific pre-arranged financing policies adopted in your project country/countries as a result of your engagement. Indicate the sector in Column D. For projects covering a region, also include relevant countries in Column E.		
IO_05	Enter the number of new or improved disbursement mechanisms designed as a result of your engagement. List the relevant sector (e.g., adaptive social protection, claims management) in Column D. For projects covering a region, also include relevant countries in Column E.	3	<ul style="list-style-type: none"> • 1 The manual for “Families in Action” cash transfer program was adjusted to allow female-headed households to receive a direct transfer following a disaster, without conditionality, according to CAT DDO III commitments (<i>Colombia</i>) • 2 Digital payments from ZEP-Re to policyholder using online platform (<i>HoA</i>) <p>— Disaggregated data details: <i>Social protection (Colombia)</i> <i>Ethiopia</i> <i>Kenya</i> <i>Somalia</i></p>
IO_06	Enter the number of rules/triggers for disaster response your project country/countries implemented as a result of your engagement.	1	
Improved availability and use of knowledge products to inform the design of risk-informed financial planning and policies against disasters, climate shocks, and other crises			
OUT_01	Enter the number of laws/regulations/amendments/policies designed as a result of your engagement. Enter the type of mechanism in Column D. For projects covering a region, also include relevant countries in Column E.	7	<ul style="list-style-type: none"> • The team is currently supporting the MoF in updating its DRF strategy (Peru) DRF and CC public policy for Bogotá (approved in September 2022) (<i>Colombia</i>) • FRS guideline and EQ [earthquake] insurance law (<i>Albania</i>) • Property Insurance Directive – amendment relating to the introduction of risk-informed pricing (<i>Nepal</i>) • Takaful Bill drafted (<i>Somalia</i>) • Draft Insurance bill and regulations revised (<i>HoA</i>)
OUT_02	Enter the number of DRF strategies designed for your project country as a result of your engagement. Enter gender or other social dimensions considered in designing the DRF strategy in Column D. For projects covering a region, also include relevant countries in Column E.	3	<ul style="list-style-type: none"> • The team is currently supporting the MoF in updating its DRF strategy (Peru) DRF and CC public policy for Bogotá (approved in September 2022) (<i>Colombia</i>) • World Bank provided inputs on DRF (<i>Albania</i>) • In addition, World Bank teams are helping to strengthen or update strategies in Morocco, South Africa, Tunisia, Uganda, and Georgia

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Provide DRF analytical and advisory services to governments			
ACT_01	Enter the number of analytical and advisory services your team provided using RFU Program funds. List the type(s) of service provided in Column D. Examples of types of service include technical study, DRF diagnostic, climate and disaster assessment, product quality assessment, rules/trigger design, legal/regulatory framework.	15	<ul style="list-style-type: none"> • Excel tool for evaluating the parametric insurance products offered by CCRIF SPC [Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company] to Archipelago Department (<i>Colombia</i>) • DRF public policy draft for the transport sector (<i>Colombia</i>) • Roadmap for adopting EQ insurance law and its implementation (<i>Albania</i>) • Assessment of flood risk to Nepal as a whole and specifically schools and hospitals in Kathmandu (<i>Nepal</i>) • Assessment of approach to include risk-informed pricing for Nepal (<i>Nepal</i>) • International experience on the development of valuation frameworks for public assets (<i>Nepal</i>) • Review of public asset data available for schools and hospitals in Nepal (<i>Nepal</i>) • Validation studies of distribution channels (<i>Ethiopia, Kenya, and Somalia</i>) • Review of insurance laws and regulations for takaful compliance (<i>HoA</i>) • Insurance market roadmap (<i>Somalia</i>) • Actuarial review of product design and pricing (<i>HoA</i>) • Technical study: Agricultural risk diagnostic and insurance feasibility study (<i>Niger</i>)
ACT_02	Enter the number of inputs you or your team provided to World Bank strategic documents at the country, regional, and global level. Examples include Strategic Country Diagnostics, Country Economic Memorandum, etc.	4	<ul style="list-style-type: none"> • Concept note on disaster risk finance & insurance (<i>Peru</i>) • CCDR [Country Climate and Development Report] & CPGA [Crisis Preparedness Gap Analysis] (<i>Nepal</i>) • The team has provided inputs to the CCDR and CPF [Country Partnership Framework] (<i>South Africa</i>)
ACT_03	Enter the number of country workshops/trainings on DRF products that you or your team provided using RFU Program funds.	37	<ul style="list-style-type: none"> • 2 DRF workshops (May 2022 and November 2022: emphasis on parametric insurance) (<i>Colombia</i>) • 3 DRF workshops (<i>Albania</i>) • 3 Uganda • 1 Zimbabwe • 1 DRF workshop on DRF tools (<i>Serbia</i>) • 2 DRF workshops (<i>Nepal</i>) • A technical workshop and launch of the DRF diagnostic with staff from National Treasury (<i>South Africa</i>) • A municipal level risk financing workshop (<i>South Africa</i>) • A focused workshop with the city of eThekweni on the diagnostic findings (<i>South Africa</i>) • DRF workshop (<i>Niger</i>) • 21 workshops, webinars, and operational training under knowledge management program <p>Disaggregated data details:</p> <p>(i) May 2022 (Manizales, Caldas): Governor of Caldas (Acting), Secretaries of Environment, Infrastructure, Finance, Housing and Planning and the Regional Autonomous Corporation of Caldas (Corpocaldas)</p> <p>(ii) November 2022 (Bogota): Ministry of Finance, National Unit for DRM [Disaster Risk Management], National Planning Department, Ministry of Agriculture and Department Archipelago</p>

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Design and disseminate knowledge products, global analytics, and global studies on DRF			
ACT_04	Enter the type and number of trainings you or your team provided that share knowledge among multiple stakeholders.	37	<ul style="list-style-type: none"> • 2 DRF workshops (May 2022 and November 2022: emphasis on parametric insurance) (<i>Colombia</i>) • 2 meetings with TWG [technical working group] on EQ insurance law (<i>Albania</i>) • 1 on fiscal risk statement with the Fiscal Risk Unit (<i>Albania</i>) • 5 virtual knowledge sharing events with the National Disaster Management Agency and municipalities (<i>South Africa</i>) • 2 capacity building workshops for Somalia's insurance regulator (<i>Somalia</i>) • 2 insurance market workshops (<i>HoA</i>) • 22 webinars for training of the regulator (<i>HoA</i>) • Agricultural insurance workshop (<i>Niger</i>)
ACT_05	Enter the number of people who have received training through your RFU Program-financed project. In Column D, list the countries in which you gave the training. In Column E, enter the percentage of participants who were women.	638	<ul style="list-style-type: none"> • 43 Colombia • 30 Albania • 7 Serbia • 100 Nepal • 40 Somalia • 30 Niger • 65 Uganda and Zimbabwe • 323 KM events participants from 18 countries <p>Disaggregated data details: 50% <i>Albania</i> 35% <i>Nepal</i> 2.5% <i>Somalia</i> 10% <i>Niger</i></p>
ACT_06	Enter the number of knowledge products (e.g., global studies, webinars, analytic tools, showcase activities) you or your team has produced using RFU Program funds. List the products in Column D.	49	<ul style="list-style-type: none"> • Excel tool for evaluating the parametric insurance products offered by CCRIF SPC to Archipelago Department (<i>Colombia</i>) • Note on cat modeling (<i>Nepal</i>) Contingent liabilities from natural disasters (<i>Nepal</i>) • EQ modeling exercise (<i>Nepal</i>) FL [flood] modeling exercise – just started (<i>Nepal</i>) • 1 Niger 42 products under KM: blogs, newsletters, publications, online webinars, training tools, training documents, videos, and podcasts 1 technical report on agricultural credit risk management.
ACT_07	Enter the types/names of flagship World Bank reports that you or your team have given input for using information derived from your RFU Program-financed project. Examples include FSAPs [Financial Sector Assessment Programs] and PSPRs [Poverty and Shared Prosperity Reports].	2	<ul style="list-style-type: none"> • Concept note on disaster risk finance & insurance in Peru (ID: P180274 Peru) (<i>Latin America and Caribbean</i>) (<i>Peru</i>) • South Africa Disaster Risk Financing Diagnostic was published in November 2022 (<i>South Africa</i>)

Indicator number	Results framework indicator instructions	Response	Disaggregated data details
Conduct ongoing DRF global policy dialogue			
ACT_08	Enter the number of events you or your team facilitated with development partners and/or donors using RFU Program Funds.	22	<ul style="list-style-type: none"> • 2 DRF workshops (<i>Nepal</i>) • A launch event was hosted with SECO for the disaster risk finance diagnostic (<i>South Africa</i>) • 1 training and 1 learning tour to Senegal (<i>Niger</i>) • 17 events under KM: podcasts, webinars, and trainings
Ensure products and services acknowledge and address the gender and social dimensions of disaster, climate shocks, and other crises			
ACT_09	Enter the number of <u>global public goods</u> which consider <u>gender or other social dimensions</u> that you or your team completed using RFU Program funds. Indicate the type of global public good in Column D. Examples of global public goods include knowledge products, publications, trainings, workshops, and events.	10	<ul style="list-style-type: none"> • 10 trainings, workshops, publications, blogs, podcasts (<i>KM</i>)

Disaster Risk Financing & Insurance Program

