Regional Workshop on Climate Finance: Role of Insurance in Financing Climate Risk
15 February 2024 | New Delhi, India

SUMMARY OF PROCEEDINGS

I. OBJECTIVES

The workshop brought together insurers, public authorities, and other stakeholders to explore what the insurance industry has to offer and how developing member countries can tap into the valuable technical expertise and financial strengths of the insurance industry to accelerate climate financing for projects with positive socio-economic and environmental impacts.

Specifically, the stated objectives of the workshop were to:

- Outline the benefit of national and regional climate and disaster risk pools;
- Raise the awareness of de-risking instruments that promote climate mitigation, social infrastructure, and natural capital investments; and
- Discuss how insurance assets can be catalyzed to co-finance climate action.

II. OPENING SESSION

Mio Oka, Country Director, India Resident Mission, Asian Development Bank (ADB) welcomed participants to the workshop and introduced the speakers for the opening session. Opening Remarks were delivered by (i) **V Anantha Nageswaran**, Chief Economic Adviser, Government of India; (ii) **Ramesh Subramaniam** (virtual)**,** Director General and Group Chief, Sectors Group, ADB; and (iii) **Abhay Bakre,** Director General, Bureau of Energy Efficiency, Ministry of Power.

V Anantha Nageswaran discussed the many dimensions of risk and insurance in the context of climate change. For example, countries that take climate action are in effect insuring economic activities in developed world; countries that have abundant supply of minerals and rare earths needed to produce renewable energy will become more vulnerable with the energy transition; financial institutions will be exposed to stranded assets; misplaced policies to mitigate emissions in developed countries will have a negative effect on the output and employment of developing nations. For these different types of risk, who is best placed to provide insurance (private, sovereign, multilateral) and in what form?

Insurance can also reward good practices by lowering the price of the premium. Adaptation at all levels (individual, institutional, sovereign, global) is the best form of insurance. Insurance has to encourage adaptation, and policy frameworks must put as much attention on adaptation as on emissions mitigation.

Ramesh Subramaniam cited the role of financial risk management instruments, including insurance, in building resilience against hazards brought about by climate change. Such instruments offer protection from shocks and losses by pooling risks into a diversified portfolio. Insurance helps firms reduce their default rates and maintain creditworthiness after disaster events. These risk pools in turn make insurance more affordable for policyholders and investment returns more sustainable to capital providers. Moreover, insurance can boost bankability of projects to attract long-term and private capital. De-risking can thus help energy transition and climate mitigation investments that involve innovative technology.

Insurance must be viewed as part of a comprehensive disaster and climate risk management approach where risk reduction measures are key. Some examples of how ADB is helping in this

area are through (i) a regional disaster risk transfer facility for earthquakes, floods, and infectious diseases for the Central Asia Regional Economic Cooperation (CAREC) countries; (ii) Disaster Relief Bond for CAREC region; and (iii) “Building Adaptation and Resilience in the Hindu Kush Himalayas” initiative. Further, the ADB-managed Asia-Pacific Climate Finance Fund (ACliFF) is supporting (i) the design of a pilot to implement financial de-risking instruments for energy efficiency investments in India and the Philippines; (ii) the development of coral reef insurance schemes in Fiji, Indonesia, the Philippines, and Solomon Islands; and (iii) pilot testing and market implementation of index-based, micro-insurance products in India.

Abhay Bakre shared that $120-150 billion worth of investments are expected in line with India’s energy transition roadmap. The majority of the investments are expected to come from the industrial and transport sectors. However, many firms have expressed concerns on the potential risks especially with regard to technology, e.g. green hydrogen for the steel sector and hydrogen/electric vehicles for transport sector. These include not meeting the expected financial returns from the investment, lack of consumer demand, lack of supply of raw materials, technological obsolescence, and absence of an enabling ecosystem.

III. SESSION 1: THE ROLE OF INSURANCE IN BUILDING RESILIENCE TO CLIMATE CHANGE

A. Keynote Address

Rowan Douglas, Chair of the Operating Committee of the Insurance Development Forum (IDF), emphasized that insurance is not just an industry but an institution of society. This concept of insurance needs to be relearned. *Insurance is the big, old, new idea.* To explain this, three examples were given — decarbonization, resilience, and just transition.

Decarbonization. Insurance can help accelerate investments in low carbon transition in the same way that it enabled the carbon revolution. Around 200 years ago, steam boilers were essential to economic growth. However, frequent boiler explosion accidents were resulting in significant losses. A group of engineers that ran an insurance company, The Hartford Steam Boiler Inspection and Insurance Company, developed standards to make safe boilers. Eligibility for insurance became dependent on compliance with the standards and insurance became a prerequisite to receive investments. As investors started to invest with confidence, the scope and scale of investments in boilers grew. This demonstrates how insurance can be used as a form of governance to catalyze technological and behavioural change.

Resilience. Fifty years later, widespread industrialization and urbanization was accompanied by massive fires in American cities. Factory owners approached the government to ask for insurance to help them cope with the losses. To receive insurance, conditions on three levels had to be met to reduce risks: (i) factories/individuals had to behave in a certain way; (ii) the state had to establish zoning laws, fire departments, building codes, etc.; and (iii) risks had to be shared with other cities or countries through reinsurance. And so, American cities were rebuilt according to standards of insurance.

Just transition. Individuals started to migrate to the cities to take on lucrative but unstable jobs. Families and communities that provided a sense of security were dispersed. Social insurance (health, employment) became the mechanism for individuals to protect themselves at different stages of their lives. Insurance was — and can be again — at the heart of a just transition.

To help move from speeches to action, the Insurance Development Forum (IDF) was established to provide a modality for the insurance industry, government, and the international development community to come together in an appropriate, precompetitive manner to work on a program of public goods. It is led by the insurance industry, and has three co-chairs: Michel M. Liès (Chairman of Zurich Insurance Company), Achim Steiner (Administrator of the UN Development Program) and Hiroshi Matano (Executive Vice President of the Multilateral Investment Guarantee Agency, part of the World Bank Group).

Today, the IDF has access to millions of dollars of donor funds for various programs, including in Asia. Among its programs are risk modeling on open platforms; disaster risk finance solutions, including nature-based solutions; and inclusive insurance. In addition, insurance assets are being mobilized for sustainable infrastructure investments. The German government has been a key donor in this space. The IDF has built a community of experts that are available to support and keen to engage.

B. Moderated Panel on climate and disaster adaptation financing

Moderator: Mr. Arup Chatterjee, Principal Financial Specialist, Sectors Group Finance, ADB

Panelists: Rowan Douglas, Chair of the Operating Committee, Insurance Development Forum (IDF); **Christine Engstrom**, Senior Director, Sectors Group Finance, ADB; **Sanjay Kumar Jain**, Ph.D III of Public Systems Groups, Indian Institute of Management, Ahmedabad; **Sebastian Lesch***,* Head of the Climate Policy Division, German Federal Ministry for Economic Cooperation and Development (BMZ) *(recorded message)*; **Anil Pokhrel**, Chief Executive, National Disaster Risk Reduction and Management Authority, Nepal *(virtual)*

Session Overview

The session discussed the potential and the experience of public-private partnerships to optimize and extend the use of insurance and its related risk management capabilities to build greater resilience and protection for people, communities, businesses, infrastructure and public institutions that are vulnerable to disasters and their associated economic shocks, as promoted by the Insurance Development Forum (IDF), a public-private partnership led by the insurance industry and supported by international organizations, officially launched by leaders of the United Nations, the World Bank and the insurance industry in 2016.

Key Messages

Government Priorities. The Governments of India and Nepal recognize the climate hazards affecting their countries and that managing these risks is a priority. For the Government of India, its approach has been to decouple growth from emissions by focusing on reducing emissions intensity while ensuring energy security. Over the past 15 years, 117 climate related policies were passed in India addressing both supply and consumption side issues.

Similarly, the Government of Nepal has adopted a National Adaptation Plan, National Disaster Risk Reduction and Management Strategy (2018-2030), and 2021 National Strategy for Disaster Risk Finance (DRF), among others. It is looking at understanding risks by running loss models for earthquakes, floods, and landslides. In addition, the prime minster had ordered the formation of a task force headed by the chief secretary to look at insurance for all assets, including hospitals, health facilities, schools, and houses.

In managing these risks, access to credible, nature-related data is a challenge. In Nepal, high mountain areas experience glacial lake outburst floods with impacts across several countries. Support for satellite remote sensing data as well as regional partnerships are needed. In addition, professional skills, especially among SMEs, need to be developed to process data and analyze climate risks.

International support. As Asia's climate bank, ADB raised its ambition to $100 billion in cumulative climate finance from its own resources by 2030. Mobilizing private sector financing and establishing public-private partnerships are key to reach this goal. ADB's Climate Change Action Plan 2023–2030 details how it will work with financial institutions, banks, insurance companies and regulatory authorities to develop green climate finance products and to introduce regulations to manage risks.

One initiative is the Building Adaptation and Resilience in the Hindu Kush Himalayas which aims to develop disaster and climate risk modeling tools, enhance design and de-risk projects and resilient infrastructure investments, and potentially co-fund sustainable infrastructure projects through tapping the asset side of the insurers. ADB is currently discussing with the IDF and their private sector partners, research institutes from Switzerland, and various donors and funds, such as the Group Risk Modeling Alliance and the Global Shield, how to best leverage the required technical and financial expertise to address these challenges and to crowd in the private sector and insurance industry with their deep and vast expertise.

Another example is the ADB-managed multi-donor trust fund, ACLiFF, which looks at unlocking capital to address climate change solutions. The fund has supported work across four states in India for the implementation of an index-based, micro-insurance product. Other projects include financial de-risking of energy efficiency investments, protecting nature capital, national and regional risk pooling solutions in CAREC, disaster relief bond, and city disaster risk pools using contingent disaster financing modality in the Philippines. In addition, ADB is working with banks so they can deepen their understanding of the climate risks in their own portfolios.

The **Federal Ministry of Economic Cooperation and Development of Germany (BMZ)** is supporting vulnerable communities in adapting to climate change by promoting a comprehensive disaster risk management approach — risk analysis, risk reduction measures, disaster preparedness, and financial protection. For financial protection, climate and disaster risk finance and insurance (CDRFI) instruments are used to address residual risks.

Collaborative approaches and strong local ownership are critical to build resilience among vulnerable groups. This model is exemplified by (i) the IDF, which can provide the technical support on risk modelling and structuring insurance solutions; (ii) the Global Risk Modelling Alliance (GRMA), which has contributed to facilitating access to global climate data, technology, and modelling tools; and (iii) the Global Shield against Climate Risks, which aims to provide financial protection through a toolbox of pre-arranged finance, including a new fund to respond to climate losses and damages.

IV. SESSION 2: PANEL SESSION ON DE-RISKING ENERGY EFFICIENCY INVESTMENTS

Moderator: Mr. Thomas Kessler, Principal Finance Specialist, Sectors Group Finance, ADB

Panelists: Patrick T. Aquino, Director, Department of Energy, Philippines *(virtual);* **Sanjay Dube**, CEO, International Institute for Energy Conservation; **Livia Miethke,** Sustainable Finance Team Lead, Base; **David Morgado,** Senior Energy Specialist, ADB *(virtual);* **Shri Baldeo**

Purushartha, Joint Secretary (Infrastructure Support & Development Division), Department of Economic Affairs, Ministry of Finance, India; **Preksha Tripathi**, Relationship Manager, Government Business & Public Private Partnerships, Munich Re

Session Overview

The session discussed various ways of de-risking energy efficiency investments. The International Energy Agency has shown that investment into energy efficiency measures could deliver more than 40% of the emissions abatement required to reach the Paris Agreement goals. The discussion focused on the benefit of credit guarantees, energy efficiency, and savings insurance.

Key Messages

Energy efficiency market. Energy efficiency is more than just replacing machinery. The energy efficiency market must be viewed as an entire ecosystem, including power generation, transmission, and storage, as well as having the enabling policies and frameworks to support this ecosystem. Some examples of support from the Government of India: developing technology to produce more efficient solar cells; adopting a policy to use tariff-based bidding for transmission projects to push private sector to improve efficiency in their operations; de-risking through public-private partnerships (PPPs), mandatory purchase of power, provision of viability gap funding; ancillary infrastructure development especially in remote areas; and tax holidays.

In the Philippines, the 2019 Energy Efficiency and Conservation Act has pushed the private sector to implement energy efficiency measures. In 2022, private sector investments for energy efficiency projects amounted to 813 million pesos. Training and certification programs are also in place to produce more energy professionals. Challenges identified were (i) the minimum investment amount to avail of the incentive system is 10 million pesos, which is not accessible for SMEs; and (ii) communicating the benefits of investing in energy efficiency products given the price disparity.

Challenges. The following challenges were identified: (i) access to financing given the perceived risks. [Financial institutions often still require collateral]; (ii) awareness and training on the proper use of technology; and (iii) assurance that investment will yield savings.

ADB's Energy strategy. In 2021, ADB launched its energy policy with energy efficiency being among its core components. ADB is supporting various measures, such as clean and efficient cooling solutions, addressing supply- and demand-side constraints, and developing enabling policies and regulations (e.g. energy codes). ADB also set up a multisector taskforce to promote energy efficiency in all buildings that will be financed by the bank.

In India, ADB has a project with the Energy Efficiency Services Limited (EESL) that established an energy efficiency revolving fund which was used for the bulk procurement of LED streetlights. Pilot projects for electric vehicles, charging stations, water pumps for agriculture, and smart meters are also being supported.

ADB is also helping to mobilize private sector resources through de-risking instruments. Specifically, it is providing technical support and financial assistance to demonstrate the benefits and viability of energy efficiency. Moreover, ADB also supports financing platforms that leverage concessional funds to develop bankable green investments and catalyze public and private

financing, such as the ASEAN Catalytic Green Finance Facility and the SDG Indonesia One Green Finance Facility.

Energy savings insurance solutions. In partnership with the Inter-American Development Bank, Base developed and implemented an **Energy Savings Insurance (ESI) model** in Latin America and Europe to facilitate decision-making of stakeholders and enhance credibility of the project. The ESI model is comprised of the following components: (i) a performance contract with a financial guarantee between the small and medium-size enterprise (SME) and the service provider; (ii) insurance/surety to cover the guarantee from the provider; (iii) a technical validation process performed by a third party expert to validate potential savings, assess implementation, and provide an opinion in case of any disputes; and (iv) blended financing to offset the additional costs of insurance and third-party validation.

The usual bottlenecks in implementing the ESI model relate to the absence of regulations for a surety product to be operational and weak demand due to lack of a project pipeline. For more information, a white paper is available on the Base website.

Munich Re's **Energy Efficiency Insurance** follows a slightly different model from ESI and targets larger projects and energy savings companies (ESCOs). Available for periods up to five years, the product covers not only asset performance (shortfall of savings), but also material damage and business interruption. It is a form of credit risk enhancement which will ultimately reduce the capital costs for investors. The product has been introduced in the United Kingdom, Spain, Ireland, and the United States and is looking to expand in India.

V. SESSION 3: NATIONAL AND REGIONAL INSURANCE RISK POOLS CONTRIBUTING TO LOSS & DAMAGE FINANCE

A. Presentation on open-source climate and disaster risk modelling as a public-good service - Nick Moody, Coordinator of the IDF Risk Modelling Steering Group

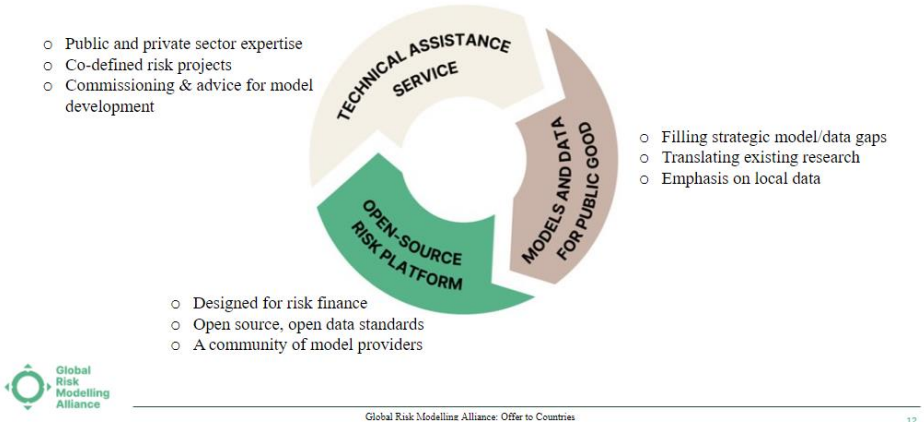
Key Messages

Increased awareness and knowledge of climate risks is a key step in closing the protection gap and moving from disaster response to risk prevention. Based on a survey among government ministries conducted by Southeast Asia Disaster Risk Insurance Facility, 71% of respondents found that their risk modelling capabilities would benefit from external support.

The Global Risk Modelling Alliance (GRMA) programme offers support to sovereigns to grow this capability. GRMA is a demand-driven technical assistance programme opening up private and public risk expertise, helping to build local expertise and empower communities to become more climate and disaster-resilient.

The GRMA team works side by side with local officials and experts in ministries and mayoral offices to co-develop and enhance access to climate and disaster risk insight, using open data standards and best practices.

Figure: Global Risk Modelling Alliance Services



B. Moderated Panel on the benefits of national and regional risk pools

Session overview

The session discussed the benefits of national and regional risk pools as part of the climate policy discourse on Loss and Damage that is considering options for averting, minimizing and addressing critical and increasingly systemic climate-related risks in vulnerable countries. In particular, it explored what it takes to set them up and how they can support finance for transformational risk management to reduce risks and adapt to climate change. Risk finance by providing efficient and sustainable risk transfer solutions to the insurance and capital market to address residual risk was also covered.

Moderator: Arup Chatterjee, Principal Financial Specialist, Sectors Group Finance, ADB

Panelists: Musa Alphan Bahar, Manager, Turkish Catastrophe Insurance Pool; **Hitesh Joshi,** General Manager, GIC Re; **Tina Mitchell**, CEO, Toka Tu Ake Earthquake Commission *(virtual);* **Subrata Mondal**, Chief Underwriter, IFFCO-Tokio General Insurance; **David Simmons**, Senior Director, Co-head, Disaster Risk Finance and Parametrics, WTW (virtual); **Hector Santana Suarez**, Head of the Insurance, Pensions and Social Security, Ministry of Finance, Mexico *(recorded message)*; **Krishna Vatsa**, Member, National Disaster Management Authority, India

Key Messages

Risk Pools. Risk pools allow governments to deliver first response to those affected by climate disasters while easing the fiscal burden. Pooling risks into a diversified portfolio enables more stable funding to make reinsurance cheaper.

Regional/Country experiences

- **Caribbean Catastrophe Risk Insurance Facility (CRIF)** is the first multi-country, multi-peril risk pool based on parametric insurance. It aims to limit the financial impact of catastrophic hurricanes, earthquakes, and excess rainfall events by supporting post-disaster recovery. Since the fund was established in 2007, it has issued 64 payouts totaling $268 million to island states all within 14 days of the event. Following the successful experience in the Caribbean, regional risk pools have also been created in Africa, the Pacific, and Southeast Asia.

New Zealand's Toka Tū Ake Earthquake Commission (ECQ) provides natural disaster insurance for residential houses against geological hazards, i.e. earthquakes, landslides, volcanic erruptions, tusnamis, and hydrothermal activities. Operating for the past 18 years, it now covers 90% of residences in the country. As a public insurance scheme, the government covers the first layer of risk up to NZ$300,000. Above this amount will be passed on to private sector. This public-private arrangement attracts private insurance companies into the local market and ensures that private insurance remains affordable. In addition, the government works with private insurers to manage processing of claims, from assessment to settlement. In 2018, New Zealand experienced two earthquakes five months apart. ECQ was able to make two claims per event from reinsurers. Altogether, the government paid out NZ$10 billion, while the insurance industry paid out NZ$20 billion. Over 70% of economic losses were covered by insurance.

- **Mexico** has adopted a comprehensive disaster risk management framework involving four layers of protection—(i) budgetary program as first reaction for rapid response and reconstruction in case of damages; (ii) consolidated insurance policy for all assets of government federal agencies; (iii) annual catastrophe insurance policy covering up to 5 million pesos, transferring risk from government to reinsurance companies; and (iv) catastrophe bonds for earthquakes and hurricanes that will provide the government financial protection of up to $485 million based on parametric insurance, transferring risks to financial markets. Risk modelling for catbonds is being supported by the International Bank for Reconstruction and Development and other organizations specialized in the insurance, reinsurance, financial markets.
- The **Turkish Catastrophe Insurance Pool (TCIP)** aims to establish long-term reserves to finance future earthquake losses and alleviate the financial burden of earthquakes on the government budget. Ultimately, it hopes to ensure coverage for all citizens at a reasonable price. By Q3 2023, for the first time since its establishment, the TCIP will expand its scope to cover all natural hazards, including floods, forest fires, and landslides. TCIP is a government institution but delivery of services (fund management, claims processing, reinsurance, etc.) is managed by a private insurance company. Other insurance companies also serve as intermediaries for sales.

Success factors

- **Retained income to stabilize pricing.** Following the 2017 hurrican in the Caribbean, CRIF was able to limit price increase to 5%. Having its own capital also helps to attract reinsurers.
- **Collaboration with domestic insurance industry.** Enables better understanding and ownership of risks
- **Government support to broaden awareness.** This promotes collective buy-in to help increase insurance penetration rate.
- **Multi-peril product.** Providing coverage for other hazards will be better appreciated by consumers.
- **Comprehensive disaster risk management strategy.** Insurance and reinsurance should be part of a broader strategy.

VI. SESSION 4: CONCLUSION AND WAY FORWARD

Moderator: Thomas Kessler, Principal Finance Specialist, Sectors Group Finance, ADB

Panelists: Annette Detken, Senior Advisor Climate Risk Insurance, Head InsuResilience Solutions Fund Management *(virtual);* **Jun Kusumoto**, Director for International Insurance Regulation, Japan Financial Supervisory Agency *(virtual);* **Junkyu Lee,** Director, Sectors Group

Finance, ADB; **Chandni Raina**, Economic Adviser, Department of Economic Affairs, Ministry of Finance, India; **Ravi Vig**, Director, Global Asia Insurance Partnership (GAIP)

Key Messages

- The **InsuResilience Solutions Fund** (ISF) provides grants for the development and introduction of climate risk insurance products. National governments, subsovereigns, and aggregators (microfinance institutions) can apply for funding support. Local ownership using local data and expertise must be demonstrated. The current application window is open until 5 April 2024.

  Global Shield solutions platform aims to provide and facilitate pre-arranged protection against climate and disaster related risks. Global Shield works with countries to develop a comprehensive country program to close protections gaps. It has three complementary financing vehicles, namely the Global Shield Solutions Platform, managed by the Frankfurt School of Finance & Management; the Global Shield Financing Facility, managed by the World Bank; and the Climate Vulnerable Forum & V20 Joint Multi-Donor Fund. To access funding, countries must submit an EOI.

- The **Global Risk Modelling Alliance** offers countries advisory and capacity development support for open data, technology and practical learning through co-development of risk management strategies and applied risk finance projects.

  The **Global Asia Insurance Partnership** is a tripartite partnership between the global insurance industry, regulators and policymakers, and academia. It produces actionable research insights, develops policy recommendations, and co-creates innovative solutions.

- The Insurance Association of Insurance Supervisors has outlined five significant areas where supervisors can help address natural catastrophe protection gaps. These are (i) contributing to the assessment of protection gaps; (ii) enhancing consumer financial literacy and risk awareness; (iii) incentivising risk prevention; (iv) fostering an enabling regulatory and supervisory environment to support insurance availability and coverage uptake; and (v) advising government and industry on financial inclusion and societal resilience.

- ADB's various instruments, such as grants for technical assistance, sovereign and non-sovereign private lending (policy-based loans, project loans, financial intermediary loans, contingent finance loan, equity investments, guarantees as well as green and sustainability bonds and disaster relief cat bonds) can be used to promote disaster and climate risk management.

  ADB's projects support (i) disaster risk financing, e.g. Disaster Risk Transfer Facility in the CAREC region and the Philippine City Disaster Insurance Risk Pool; (ii) resilient infrastructure risk financing, e.g. the Hindu Kush Himalaya initiative Building Resilience and Adaption; (iii) nature solutions financing, e.g. Coral Reef Finance and Insurance Schemes; (iv) sustainable SME financing, e.g. financing the Blue Economy and the bamboo value chain; (v) energy efficiency financing, savings financing, and insurance models.

  ADB will support continued and enhanced dialogue amongst all stakeholders, including the insurance industry, which focus on the implementation of concrete project with immediate impact.

Closing Remarks: Daniel Stander, Climate Risk Finance Specialist

Insurance is more than just an industry; it is an institution of society. The potential for this big, new, old idea of insurance is huge - and the time is now.

The possible applications of insurance solutions are broad, varied, and mutually reinforcing. Insurance can be used to both understand and structure risks; to both prevent and protect from climate hazards; to both adapt to climate impacts and transition to net-zero economy; and to both pool resources and de-risk investments.

It is not easy to develop and implement solutions. However, there is a community of stakeholders ready and able to collaborate in a variety of ways.

- Donor nations offering technical assistance and premium subsidies.
- The insurance industry and academia offering data and models as a public good.
- Other nations offering lessons learned.
- Insurance supervisors keen to put the enabling environment in place to help close the protection gap.
- Development banks, like ADB, offering concessional products, services and expertise.

Progress must be demand led. Governments must come forward and lean into this community. Following this workshop, government officials are encouraged to seize the opportunity and reach out to those who are wiling to assist — ADB, IDF, ISF, GRMA, Global Shield against Climate Risk, and the United Nations Development Program.