OVERVIEW SUMMARY

As we look toward a post-COVID-19 era, investing in sustainable infrastructure is crucial for reigniting global growth, attaining the Sustainable Development Goals (SDGs), and reducing climate risk. However, it is generally recognized that additional investments in the billions of dollars per year are needed to make infrastructure resilient to disasters and climate change.

With this in mind, on September 10 (Washington) and September 11 (Sydney), a joint webinar to examine the approaches for enabling investment in adaptation and resilience (A&R) across infrastructure sectors was held by the Investor Group on Climate Change (IGCC), the Asia Investor Group on Climate Change (AIGCC), and the Global Infrastructure Facility (GIF).

The 120-minute webinar was an open dialogue among more than 110 participants representing IGCC, AIGCC, and GIF members and partners, and invited developed and developing country government participants, along with multilateral development banks (MDBs) active in the Asia-Pacific region. Through two distinct but related sessions that examined four areas of interest—multi-level integrated planning, systems-based approaches, data collection and accessibility, and the business case for investing in A&R, the webinar explored emerging practices of government and private sector investment in A&R and ways to support and accelerate it.

Webinar Co-chairs Jason Lu, Head of the GIF and Emma Herd, CEO of IGCC provided welcome and opening remarks to set the scene. Two moderators, Bernice Van Bronkhorst, Global Director of Climate Change at the World Bank and Alzbeta Klein, Director and Global Head of Climate Business at the International Finance Corporation (IFC), led the webinar’s two sessions. Richard Neumann, Director of Climate Innovation & Investment in the Department of Foreign Affairs and Trade for Australia made the final reflections, and Co-Chair Rebecca Mikula-Wright of AIGCC, provided the closing remarks.
OPENING REMARKS

Jason Lu welcomed all participants, including his co-organizers and their respective organizations, the GIF’s Advisory Partners, MDB Partners, and two of the GIF’s founding donors—the governments of Japan and Australia, as well as representatives from the United Kingdom in attendance. He stated that sustainable, quality and resilient infrastructure is critical more than ever in this COVID-19 era, and that the GIF is committed to applying a climate lens to its work and to attracting more private investment to resilient infrastructure development.

Emma Herd introduced the IGCC, an industry association of Australian and New Zealand investors, concerned with the investment implications of climate change, and whose partners manage over AUD$2 trillion in assets. She delved into the webinar’s topic by emphasizing the need for new models for investing in A&R and increasing investor appetite for climate-aligned investment and resilient portfolios. She also contextualized the impacts of climate change in Australia, where extreme weather events could potentially result in economic damages up to AUD$1.89 trillion over the next 30 years. She went on to pose the webinar’s framing questions: What are the impacts of the increasing effects of climate change? How do we measure the financial risks and impact of climate change for portfolios and investment and for infrastructure? How do we increase allocation of capital into adaptation solutions? How do we measure the net resilience of our assets today and over time? Have we gained valuable insights?

SESSION ONE SUMMARY

Segment 1: Multi-level Integrated Planning, System-based Approaches, and Access to Climate Data

- Moderator: Bernice Van Bronkhorst, Global Director, Climate Change, World Bank
- Presenter: Ryan Bartlett, Director, Climate Resilience & Risk Management, World Wildlife Fund
- Presenter: Bruno Carrasco, Chief of Governance Thematic Group, Sustainable Development and Climate Change Department, Asia Development Bank (ADB)
- Discussant: Dr. Nick Wood, Associate, Energetics

Key takeaways:
- The net benefit of investing in resilient infrastructure could be more than US$4.2 trillion
- Non-stationarity is rendering old planning standards obsolete
- Integration of QII principles will help to promote sustainable infrastructure development

In her opening to the first session on multi-level integrated planning, system-based approaches, and access to climate data, moderator Bernice Van Bronkhorst emphasized the broader impacts of infrastructure disruptions—ones that “render firms unproductive, communities more vulnerable, and basic services unavailable”. She noted the World Bank’s 2019 Lifelines report, a blueprint that lays out a framework for understanding infrastructure resilience and makes an economic case for it. The report found that the net benefit of investing in resilient infrastructure could be more than US$4.2 trillion over its lifetime in avoided economic, social and environmental losses—resulting in a triple dividend. See also: The World Bank Group Action Plan on Climate Change Adaptation and Resilience.

The need for better policies and better quality, sustainable infrastructure development through integrated systems was affirmed by Ryan Bartlett who discussed what he sees as a triple crises—a 68 percent decline in the number of the world’s species on average, the COVID-19 pandemic, and the global economic crisis. He suggested that projects not be developed in isolation, but planned and implemented within the context of ecosystems, with factors being considered upstream in planning processes to avoid disruptive consequences that would need to be reduced, offset, mitigated further downstream in the project cycle. He also raised attention to how non-stationarity is rendering old planning standards obsolete and driving risk into investment portfolios as the risks of climate change are still not understood. He noted the need for better climate data and analytics and clarified that the current climate projection models based on climate history are useful for scenario planning analysis but not for guiding specific decision-making. He proposed that infrastructure project design be considered holistically in the pre-planning stage, looking at larger spatial scales, climate risk, development needs, and ecosystem services to better determine the right mix of infrastructure investment needed.
The ADB’s strong commitment to climate change was illustrated by Bruno Carrasco who presented on the public management perspectives for investing in A&R in infrastructure. He referred to the ADB’s 2030 Strategy that stipulates that 75 percent of the ADB’s committed operations will support climate change mitigation and adaptation by 2030, with climate finance from its own resources reaching US$80 billion cumulative between 2019-2030. He also noted that ADB is taking steps to work with its partner countries to address adaptation challenges. For example, during the preparation phase of a Vietnam roads project, the ADB introduced allowances for climate change in detailed engineering design to account for expected changes in 1-in-25-year extreme rainfall events. Further acknowledged was the importance of infrastructure efficiency and the value for money proposition, which can be improved through better project selection, appraisals and management, as put forth in the Quality of Infrastructure Investment (QII) Principles for sustainable infrastructure development. ADB has instituted a Climate Risk Screening and associated Climate Risk and Adaptation Assessment Process for its portfolio and is also preparing a Rapid Assessment Framework designed for decision-makers to evaluate low-carbon and resilience building recovery investments against their medium- and long-term recovery based on value for money, lifecycle cost benefit analysis, and risk analysis.

The discussion was enhanced by important nuances provided by Dr. Nick Wood, the session discussant, who grounded the discourse in real world examples. This included pertinent observations of non-stationarity and how it is accelerating risk into portfolios. For example, he is witnessing the effects of extreme climate events like the Australian bush fires, whose impact and risk are not easily or scientifically teased out, in contrast to the longer-term climate science systems response to agriculture and water events and population exposure to those changes. He suggested that climate non-stationarity and the uncertainty it represents is not well understood by the investor community and agreed with Ryan Bartlett that despite this deep uncertainty, climate projections models are useful for scenario planning analysis, but not for guiding specific decision-making. He also noted Australia’s progress in developing a sovereign climate risk capability and the need for more transparent policy decision making in order to attract private investment into A&R.

SESSION TWO SUMMARY

Segment 2: The Business Case and Opportunities for Private Investment in A&R; How Governments Can Provide Support

- Moderator: Alzbeta Klein, Director and Global Head of Climate Business, IFC
- Presenter: Carlos Sanchez, Director, Climate Resilience Investment, Willis Towers Watson; Executive Director, Coalition for Climate Resilient Investment (CCRI)
- Presenter: Brooks Preston, Managing Director, Macquarie Group
- Discussant: Chris Newton, Executive Director, IFM Investors

Key takeaways:
- Attracting private capital requires new financing models that are measurable and prediclab
- CCRI is developing a framework for interpreting physical climate risk analytics into a cash flow model
- IFC is striving to increase private investments in adaptation

Alzbeta Klein, moderator of the webinar’s second session on the business case and opportunities for private investment in A&R, posed some initial questions for consideration by presenters and attendees, such as: Why are investors not pricing climate risk? Whose responsibility is adaptation and resilience activities—the public or private sector? What products can be used to catalyse investments in infrastructure? Is adaptation and resilience a public good? Alzbeta also acknowledged that although much of the private sector is not quite ready yet, the IFC is striving to increase its investments in adaptation by seeking ways to create partnerships between the public and private sector to scale up investments in adaptation, including resilient infrastructure investments, climate-smart agribusiness investments, and investments in smart and resilient cities.

Better approaches to climate change analytics, related rating systems, and the valuation of physical climate risk in investments was discussed by Carlos Sanchez, who spoke on behalf of the Coalition for Climate Resilient Investment (CCRI). Launched at the UN General Assembly’s Climate Action Summit in 2019, CCRI aims to address the different levels (systemic, asset and financing levels) in which the mispricing of physical climate risks in investment decision-making is manifested. He suggested that as analytics, regulations and ratings evolve, there will be a better understanding of climate data in the near future, creating risks—of a correction, but also opportunities for those with the interest to
better understand the correct valuation of climate risks. Also notable was CCRI’s development of a cash flow modelling framework for the interpretation of physical climate risk analytics into different lines of a cash flow model that consists of five modules: revenue impact, engineering, insurability, cost of capital and asset valuation.

**Brooks Preston**’s presentation on Pioneering Resilience & Finance for Adaptation underscored how attracting private capital requires new financing models with revenues that are measurable and predictable. Governments can create enabling environments through early stage development, regulation and market structures. It was recognized that infrastructure mitigation, adaptation and resilience are a critical part of any solution, however, the question remains: How to connect infrastructure resilience benefits with revenues from beneficiaries? In some cases, this is being done with assets that already exist thorough enhancements. For example, a MIRA supported investment of more than US$8 billion allowed a utility company in Washington State in the U.S. to maintain and grow its natural gas and electric systems. This improved energy delivery to 1.5 million customers and resulted in more than 400MW of hydro, wind and solar generation capacity being added during the period of MIRA’s involvement with the business. The next step to a systems approach, vs asset level approach, is more difficult. One idea is to organize the revenues of a utility and the community to support investment in such things as levees and sea walls that could deliver an entire resilience system. However, this would require revenue and indicative investment criteria to be reconciled in order to attract investment.

Session discussant **Chris Newton** brought out the salient aspects of the discussion thorough his observations. He noted the clarity of Brooks Prestons’ illustration of a powerplant in a flood plain and the A&R options for the plant and its surrounding community: move the plant up the hill, build a wall around the plant, or optimally, organize the revenues of the plant and the community to build a resilience system. Chris likened a systems approach to regulatory pricing models and how a potential change to the regulatory return profile could incentivize (or disincentivize through penalties) private participation in A&R. This approach has been applied to airports and seems to be one of the easiest A&R solutions. Chris also noted the Australian brushfires’ impact on PNLs: operating expense costs increase, fire management preparation time shortsens, and manhours needed increase. He questioned how this scenario could be accounted for by modelling frameworks, such as the one CCRI is developing. Carlos Sanchez noted that CCRI is looking at such scenarios with the help of engineering firms, risk analytic firms and how credit rating agencies are adjusting risk.

**FINAL REFLECTIONS & REMARKS**

**Richard Neumann**, Director of Climate Innovation & Investment in the Department of Foreign Affairs and Trade for Australia, reflected on the discussions had from the perspective of the Australian government and policymakers working in A&R. At a national level, he noted Australia’s Climate Compass and the opportunity to expand it across the agriculture sector, as well as the significant steps being taking toward enhanced mitigation measures. At a global level, with Australia being a Co-chair of the G20, he recognized the critical role of climate resilient infrastructure to long-term economic, social and environmental sustainability and the quality infrastructure agenda. He also noted the importance of value for money as a whole of lifecycle cost of projects, and the QII Principles: Principle 3 on integrated environmental consideration in infrastructure and Principle 4 on building resilience against national disasters and other risks.

Webinar Co-chair, **Rebecca Mikula-Wright**, Executive Director of the Asia Investor Group on Climate Finance, provided closing remarks by thanking all, acknowledging the rich information shared, and encouraging it be acted on, mindful of the urgent need for significant increases in infrastructure investment in A&R. She noted in summary the tools and systems available, the case for more holistically integrated systems—from asset level to societal level, and the challenges to scaling up and deploying sustainable infrastructure, including mispricing and inconsistent risk assessment, and the need for better enabling environments. She also conveyed a need for the private sector to send clear signals to government on how to enable ready private capital to invest in sustainable infrastructure; and a need to collaborate across the industry to find solutions—such as through the facilitation role of the GIF, a space for practical collaboration among stakeholders to scale carbon and resilient infrastructure as well as technical expertise in project preparation and transaction support. She closed by saying the AIGCC looks forward to developing new partnerships with MDBs and investors, and the many others participating in the area of investment in A&R.
ABOUT THE INVESTOR GROUP ON CLIMATE CHANGE
The Investor Group on Climate Change (IGCC) is a collaboration of Australian and New Zealand institutional investors focused on the impact of climate change on investments. The IGCC represents investors with total funds under management of over $2 trillion. IGCC members cover over 7.5 million people in Australia and New Zealand. IGCC aims to encourage government policies and investment practices that address the risks and opportunities of climate change.

ABOUT THE ASIA INVESTOR GROUP ON CLIMATE CHANGE
The Asia Investor Group on Climate Change (AIGCC) is an initiative to create awareness and encourage action among Asia’s asset owners and financial institutions about the risks and opportunities associated with climate change and low carbon investing. AIGCC works with members with combined assets under manager of over $9 trillion and provides capacity and a trusted forum for investors active in the Asia region to share best practice and to collaborate on investment activity, credit analysis, risk management, engagement and policy related to climate change. With a strong international profile and significant network, including pension and sovereign wealth funds, insurance companies, fund managers, family offices and endowments, AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy.

ABOUT THE GLOBAL INFRASTRUCTURE FACILITY
The Global Infrastructure Facility (GIF) is a G20 initiative with the overarching goals of increasing private investment in infrastructure across developing countries and improving services in ways that contribute to poverty reduction and equitable growth aligned with the Sustainable Development Goals. Through funding and technical expertise, the GIF provides end-to-end, comprehensive advisory services to client governments and multilateral development bank partners to build pipelines of bankable and sustainable infrastructure investments that are attractive to private capital. A suite of blended finance solutions to de-risk private investment is currently under design. As a global collaboration platform, the GIF enables collective action among a wide range of partners – including donors, development finance institutions, client country governments, together with an Advisory Partner network of investors and financiers – to leverage both resources and knowledge to find solutions to sustainable infrastructure financing challenges. The GIF is currently supported by Australia, Canada, China, Denmark, Japan, Singapore, and the World Bank.