

Role of MDBs in Financing Climate Resilience Technologies

Julija Kuklyte Polycarp, Climate Change Specialist Asian Infrastructure Investment Bank

Sept 15, 2023





Who We Are and What We Do

We are a multilateral development bank with a mission to finance the **Infrastructure for Tomorrow (i4t).** We enable clients to build i4t—green infrastructure with sustainability, innovation and connectivity at its core. We do this by unlocking finance that brings this vision to fruition. As our clients succeed in building i4t, society shares in that success.



How We Do It

We adapt and innovate constantly to deliver customized investment solutions that overcome the challenges our clients face. Clients count on our responsiveness and resilience to help them meet their objective even during the most difficult times.



Why We Do It

Prosperity and economic development for Asia is our goal. To realize this, we facilitate the i4t that empowers regions and their people with access to physical, digital and social services. This in turn contributes to local, regional and global sustainability.



AllB Invests in i4t

Merely seven years old, AIIB's mission financing **Infrastructure for Tomorrow (i4t)** reflects the bank's firm commitment to build technologicallyenabled sustainable solutions. i4t unlocks new capital, new technologies and new ways to address climate change and to connect Asia, and the world.

AllB Invests in i4t, the Infrastructure for Tomorrow:





AllB's Four Thematic Priorities

AllB's investment across infrastructure and other productive sectors should ordinarily add value through one or more of the four cross-cutting themes of i4t:



Green Infrastructure

- Climate mitigation and/or climate adaptation potential, based on eligibility criteria set out under the joint MDB principles and methodology for tracking climate mitigation and adaptation finance
- Other environment benefits, such as activities based on the International Development Finance Club's (IDFC) eligibility list (e.g. industrial pollution control, waste management, etc.)

Connectivity and Regional Cooperation

- Domestic Connectivity projects that increase capacity or remove bottlenecks between major urban centers or key economic areas
- Cross-Border Connectivity
- projects involving physical connections across borders and node infrastructure; projects enhancing regional integration through direct facilitation of cross-border flows of goods, services, people, capital and data.



Technology-enabled Infrastructure

- Investments in technologies for infrastructure
- Application of technology to infrastructure

Technology is expected to dramatically change the way infrastructure is designed, constructed and operated by delivering better value, productivity, efficiency, resilience, sustainability, inclusion, transparency or better governance along the entire project lifecycle. Technologies need to be new or recent for the country and sector and should clearly improve infrastructure quality.



Private Capital Mobilization

- Direct Mobilization: financing from a private entity is committed due to the active and direct involvement of AIIB.
- Indirect Mobilization: financing from a private entity is committed to a project for which AIIB is providing financing but did not play an active or direct role that leads to the commitment.

Infrastructure needs and climate change impacts in Asia

- Physical assets and infrastructure in Asia are expected to bear the brunt of losses under a changing climate: by 2050, 75% of the USD1.6 trillion global annual damage to capital stock from riverine flooding alone will occur in Asia.
- To maintain its growth momentum and tackle remaining poverty in the region, developing Asia will need to invest USD1.5 trillion annually in infrastructure until 2030.
- In 2020, overall disaster loss in Asia amounted to USD67 billion, and it is estimated that the growth in average annual disaster losses will outpace gross domestic product growth in the region.









COP27 Adaptation Agenda

Through initiatives such as the <u>Sharm-El-Sheikh Adaptation Agenda</u>, MDBs could help in mobilizing its own financing and private capital for technological development that builds resilience and achieves the following targets/objectives





IRRIGATION



Sustainable irrigation systems implemented across 20% of global croplands to preserve water availability and support yield growth

Smart and early warning systems to reach **3 billion people**

A diverse set of energy generation sources to enable affordable access to electricity for 679 million unconnected and higher quality access for 1 billion underserved



Transport infrastructure to be made resilient to climate hazards through adoption of new technology, design and materials



Adaptation technologies- key solution

Diverse feasible climate responses and adaptation options exist to respond to Representative Key Risks of climate change, with varying synergies with mitigation Multidimensional feasibility and synergies with mitigation of climate responses and adaptation options relevant in the near-term, at global scale and up to 1.5°C of global warming

		Climate responses ¹ and adaptation options	✓ Potential feasibility	Synergies with mitigation	Dimensions of potential feasibility							
System transitions	Representative key risks				Economic	יו) Techno- logical	Insti- tutional	Social	Environ mental		Feasibility level and synergies with mitigation	
	Coastal socio- ecological systems	Coastal defence and hardening Integrated coastal zone management	•	not assessed	•	•	•	•	ė	•	High Medium	
Land and ocean ecosystems	Terrestrial and ocean ecosystem services Biodivers	Forest-based adaptation ² Sustainable aquaculture and fisheries Agroforestry ity management and ecosystem connectivity	•		•	•••••••••••••••••••••••••••••••••••••••	•	•••			 Low Insufficient evidence Dimensions of potential feasibility 	
	Water security Water use efficiency and water resource management		•	•	•	•	•	•	•	•	Confidence level	
	Food security	Improved cropland management Efficient livestock systems	•	•	•	•	•	•	8	•	in potential feasibility and in synergies with mitigation	
Urban and infrastructure systems	Critical infrastructure, networks and services	Green infrastructure and ecosystem services Sustainable land use and urban planning Sustainable urban water management	•	•	•	•	•	•	8		High Medium Low	
	Water security	Improve water use efficiency					•	/				
Energy systems	Critical infrastructure networks and service		8		•	8	•	8	•	not applicable not applicable	Footnotes: ¹ The term response is used here instead of adaptation	
	Human health	Health and health systems adaptation	•		•	•	•	•		1	because some responses, such as retreat, may or may	
	Living standards and	equity Livelihood diversification	•		•	۲	•	•	•		not be considered to be adaptation.	
Cross- sectoral	Peace and human mobility	Planned relocation and resettlement Human migration ³	•	*	•	•	•	•	:	•	² Including sustainable forest management, forest conservation and restoration, reforestation and	
	Other cross-cutting Clima risks	Disaster risk management te services, including Early Warning Systems Social safety nets Risk spreading and sharing	•	, ,	•	•••		•			afforestation. ³ Migration, when voluntary, safe and orderly, allows reduction of risks to climatic and non-climatic stressors.	

- There s a clear link between mitigation and adaptation technologies
- The feasibility of implementing adaptation options in the near-term differs across sectors and regions
- Effectiveness of adaptation will decrease
 with increasing warming
- Urban and infrastructure sectors, adaptation technological solutions include green infrastructure and ecosystem services; sustainable urban water management;
- Energy sector options include resilient power systems and energy reliability

Source: IPCC report

MDBs and Climate Finance



Figure 5. MDB adaptation finance by region in low- and middle-income economies, 2021 (in \$ million)



TOTAL ADAPTATION FINANCE BY REGION \$17 611 million

- Central Asia **\$485 million**
- East Asia and the Pacific **\$2 308 million**
- Europe: EU **\$98 million**
- Europe: Non-EU \$542 million
- Latin America and the Caribbean \$2 984 million
- Middle East and North Africa **\$1 100 million**
- South Asia **\$3 034 million**
- Sub-Saharan Africa \$6 847 million
- Multi-regional \$214 million

- Each year, MDBs issue a joint climate finance report, providing an overview on the nine multilateral development banks' contribution to climate finance, including mitigation and adaptation, low- and middle-income and middleand high-income economies.
- In 2021, MDBs provided around \$51 billion (62% of overall MDB climate finance) in climate finance to low- and middle-income economies.
- Of this total,
 \$33 billion (65%)
 was for mitigation
 and \$17 billion (35%)
 for adaptation
- Central, South and East Asia and the Pacific receives largest amount of adaptation finance, totaling \$5.83 billion



 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●
 ●





AIIB CLIMATE | FINANCE IN 2022 |

In 2022, AIIB's climate finance amounted to **56%** of total approved regular financing, up from **48%** in the previous year.



- AllB climate finance is estimated using the joint MDB climate mitigation and adaptation finance tracking methodologies. 5% of climate adaptation finance had dual benefits of mitigation and adaptation.
- AllB climate finance for 2022 excludes financing approval through the COVID-19 Crisis Recovery Facility.



CLIMATE FINANCE TARGET: 50% OF TOTAL APPROVED REGULAR FINANCING BY 2025



ALIGNMENT OF NEW INVESTMENT OPERATIONS WITH THE GOALS OF THE PARIS AGREEMENT BY JULY 1, 2023

Multicountry Lightsmith Climate Resilience Partners



USD 30 Million



Investment

Climate resilient technologies



Regular monitoring of the Fund's activities Lightsmith Climate Resilience Partners is a specialist growth private equity fund with a strategy focusing on global climate resilience solutions. The Fund plans to make growth equity investments in companies that build resilience to the physical damage and disruption, risk and volatility, and resource scarcity that are being increased by climate change. The Fund is the first dedicated private equity investment strategy focused on climate resilience and adaptation solutions.

The Fund will target the following three types of companies for efficient, sustainable, and resilient infrastructure: (i) software, data and analytics; (ii) technology-enabled products; and (iii) technology-enabled services.

AIIB approved the project in August 2020.





Nulticountry VC Investment Program

AllB Funding



Eligible



USD 130

Million



Regular monitoring of the Fund's activities AllB's VC Investment Program invests in innovative and transformative technologies and new business models that would contribute to climate mitigation efforts and lead to improving traditional infrastructure's resilience and adaptation to climate change. The Program aims to develop innovation and greater VC investment in AIIB members by primarily investing in early-stage (Pre–Series A and Series A–B) technologies and new business models through small-scale VC funds that focus on Energy Access, ClimateTech, CleanTech, Carbon accountingrelated tech, Resource Efficiency and Sustainable Cities.

AIIB approved the program in August 2022.





Technological solutions to support adaptation

Some of the solutions that help in addressing resilience



Infratech Platform – Public Web Portal

Infratech Platform promotes and facilitates increased development and adoption of Infratech through knowledge sharing on solutions, use cases, and vendors



Upload Infratech solutions to attract users

Focus sectors

Search and explore Infratech Solutions

Technologies for all AIIB's infrastructure sectors are included

Climate	
Energy	Transport
Sustainable Cities	Digital Infrastructure
Water	Social Infrastructure



Functionality

- Browse solutions through various filters: e.g. (sub-) sectors, type of technology, lifecycle / value chain
- · Upload new solutions and relevant content
- · Contact authors, vendors, and other users

Content per solution

- Solution description and key benefits
- Technology components (sensors, analytics, AI, etc.)
- Market overview (size, growth, in which geographies the solution is widely used)
- · Vendors (companies that sell the solution)
- Case studies (stories of successful adoption)

***OFFICIAL USE ONLY**



Thank you!

AIIB

Tower A, Asia Financial Center No.1 Tianchen East Road Chaoyang District Beijing, China 100101

+86-10-8358-0000 information@aiib.org

aiib.org