Unlocking Private Sector Investment in Climate Adaptation

Presentation by **PwC**
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The Adaptation Finance Gap & Need for Private Sector

01

Huge finance gap

Developing countries need on the order of US$300–400 billion per year for adaptation, but current flows are only tens of billions . UNEP (2023) estimates $387 bn/yr needed vs ~$27.5 bn in flows (2022) . CPI (2023) similarly finds $212 bn needed vs $56 bn tracked (2021–22).

02

Current flows mostly public

Governments and MDBs provide the bulk of adaptation finance. Private sector contributions have been negligible – consistently <3% of adaptation finance in recent years . Africa in particular received only ~$13 bn/yr vs $53 bn needed .

03

Need for private sector

With shrinking aid budgets and soaring needs, mobilizing businesses, banks and investors is essential to narrow the gap . High-level experts argue private flows must scale from today's ~$30 bn to ~$450–500 bn by 2030 (15–18× increase) to meet developing country needs . The private sector can bring capital, innovation and efficiency to resilience projects.

What's in it for the Private Sector?

The Triple Dividend in Action

Avoided Losses	Economic Benefits	Social & Environmental Benefits
•Early warning systems save lives and assets worth 10x their cost. A $800M investment could prevent $3–16B in annual losses in developing countries. •Climate-resilient infrastructure adds 3% to costs but returns 4x the investment.	•Urban flood protection lowers financial risks and enables climate-resilient investments (e.g., Canary Wharf via the Thames Barrier). •Drip irrigation boosts crop yields and is spreading in water-scarce regions.	•Mangroves prevent $80B in flood losses yearly and protect 18M people. •They also generate $40–50B in other benefits, with total returns up to 10x costs.

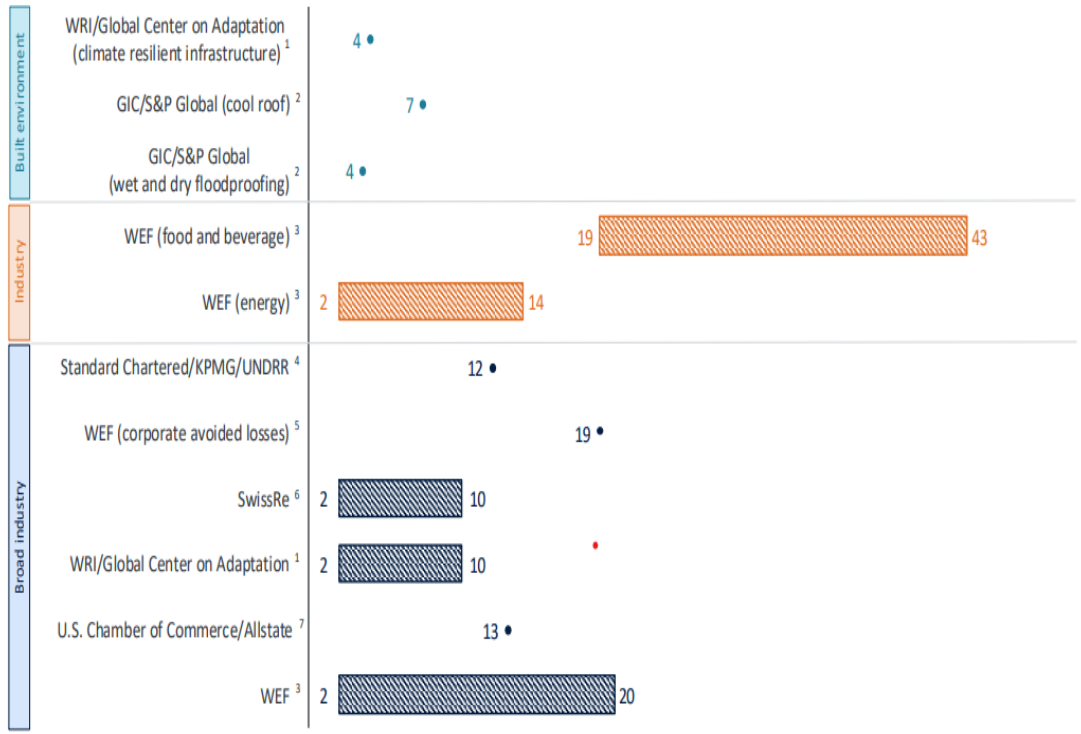
Investing in Adaption yields

A Triple Dividend =

Avoided Losses
+
Economic Benefits
+
Social & Environmental Benefits

Comparisons of ROI of climate adaptation and resilience studies

(economic benefit per $1)



Opportunities & High Returns on Adaptation

Compelling economics

- Investing in resilience pays off.
- The Global Commission on Adaptation found **that $1.8 trillion invested globally (2020–30) could generate ~$7.1 trillion in net benefits** .
- Benefit-cost ratios for many adaptation projects range from 2:1 up to 10:1 .

Expanding markets

- Climate change is creating new business opportunities in:
  - resilient agriculture (drought-tolerant seeds, water-efficient tech),
  - resilient infrastructure (flood-proof roads, climate-smart urban design),
  - insurance, and climate information services.
- As governments and communities demand solutions, innovative firms can capture these growing markets.

Steady value creation

- Adaptation projects not only avert disaster losses but also improve daily lives – via more jobs, health benefits and economic growth.
- WRI found that **each $1 invested in adaptation/resilience generates over $10 in social and economic gains** over 10 years .
- Adaptation is “smart development” with returns independent of whether a disaster strikes.

Nature-based solutions

- Ecosystem restoration (mangroves, wetlands, forests) provides flood and storm protection at scale.
- These projects **can attract private investment via carbon/nature markets or green financing,** while delivering co-benefits for biodiversity.

Challenges Hindering Private Investment

Low commercial returns

- Adaptation often produces public goods (reduced disasters, ecosystem services) rather than direct revenue.
- High social ROI estimates (e.g. $12 to $43 gained per $1 spent) are driven by broader economic benefits; private investors rarely capture these gains .
- If adaptation were easily profitable, it would be happening already.

Few bankable project

- Many adaptation solutions are highly context-specific (e.g. local flood controls, community-driven programs) and lack standardized business models .
- This makes it hard for investors to scale or replicate projects.
- A shortage of investable pipeline – due to technical complexity and weak project preparation – limits opportunities.

Perceived risks and barriers

- Institutional investors face acute and chronic risks in many emerging markets (political instability, currency volatility, extreme events) .
- Adaptation finance lacks common definitions and benchmarks: no universally accepted “resilience bond” standards or taxonomies, and climate risk data are often incomplete .
- Confidentiality and long timelines (projects with payoffs over decades) further deter private actors.

Blended finance limitations

- While public-private blends (guarantees, concessional loans) are advocated, real-world leverage ratios have been modest.
- Studies show typical blended finance yields only ~$1 of private capital per $1 public, not the 6:1 often claimed , especially in low-income countries

Innovative Financing Models

01 **Blended finance and guarantees**

Public funds can de-risk private capital through concessional loans, guarantees or insurance. (However, recent analysis finds blended finance often mobilizes only ~$1–1.6 private for each $1 public ; still, it remains a key tool to make adaptation projects “bankable.”)

02 **Debt-for-climate swaps**

Countries burdened by debt can negotiate swaps where debt repayments are converted into local investments in adaptation. These innovative swaps can free up fiscal space for resilience projects. Multiple examples in LATAM. Seychelles ($21.6m in debt buy back for conserving 30% of marine territory) and Gabon ($500m blue bond for buy back with $163m kept for conservation) have done it in Africa

03 **Insurance and Resilience bonds**

Insurance markets are evolving (catastrophe bonds, index insurance, parametric insurance) to transfer climate risks. “**Resilience bonds**” bundle insurance with project financing so that premiums and payouts are tied to actual risk reduction. **Parametric Insurances** are another emerging breed of insurances. Eg. Africa Risk Capacity (ARC) has already settled claims worth $170m.

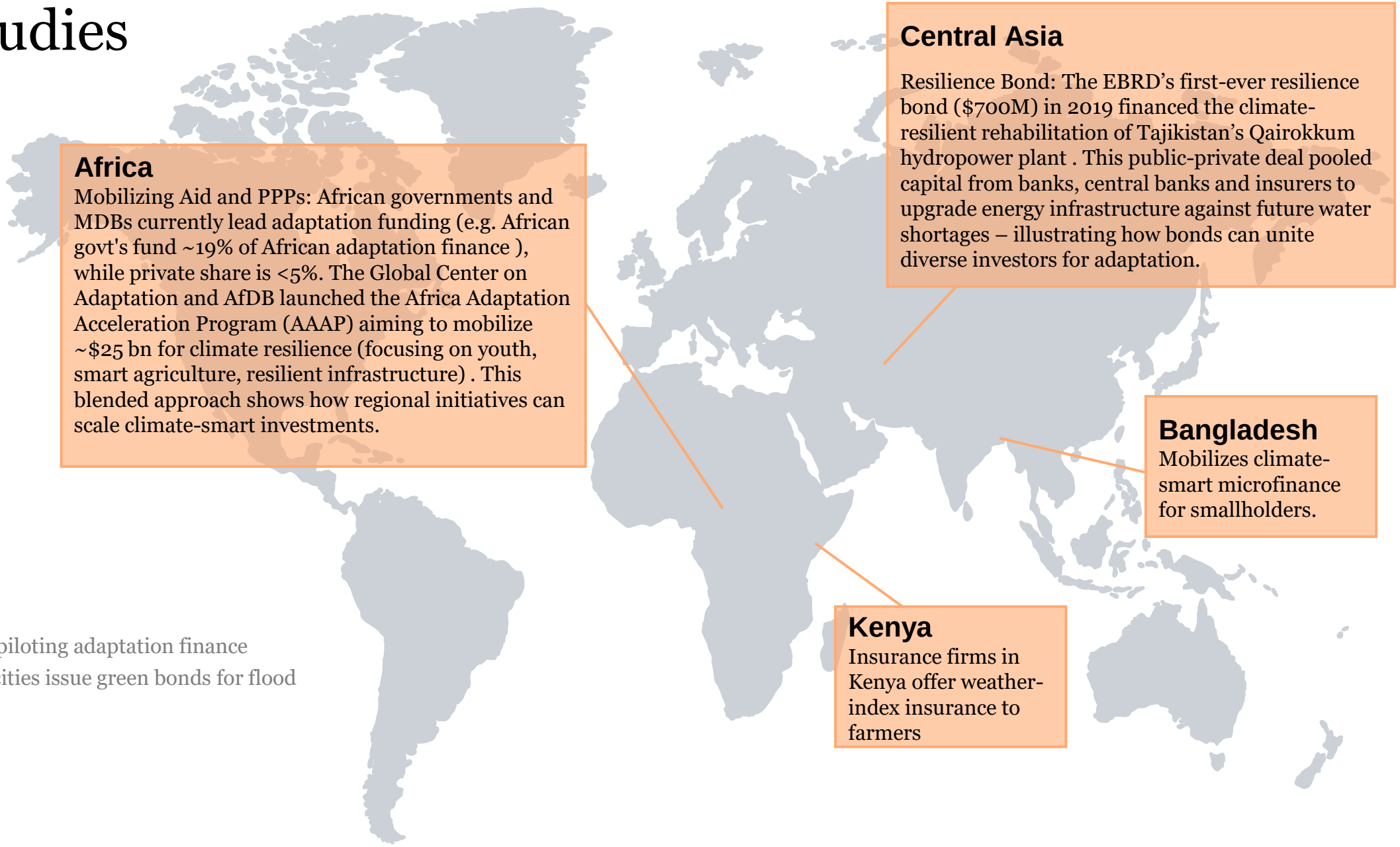
04 **Green finance mechanism**

Climate bonds, sustainability-linked bonds/ loans and impact investment funds specifically target resilience outcomes. Most taxonomies now includes adaptation activities, allowing use of sustainable finance products. .

05 **Philanthropy and CSR**

Foundations and corporate social responsibility funds have been funding pilot projects. Though small now, they can catalyze proof-of-concepts and show viability to mainstream investors.

Case Studies



Africa

Mobilizing Aid and PPPs: African governments and MDBs currently lead adaptation funding (e.g. African govt's fund ~19% of African adaptation finance), while private share is <5%. The Global Center on Adaptation and AfDB launched the Africa Adaptation Acceleration Program (AAAP) aiming to mobilize ~$25 bn for climate resilience (focusing on youth, smart agriculture, resilient infrastructure) . This blended approach shows how regional initiatives can scale climate-smart investments.

Central Asia

Resilience Bond: The EBRD's first-ever resilience bond ($700M) in 2019 financed the climate-resilient rehabilitation of Tajikistan's Qairokkum hydropower plant . This public-private deal pooled capital from banks, central banks and insurers to upgrade energy infrastructure against future water shortages – illustrating how bonds can unite diverse investors for adaptation.

Bangladesh

Mobilizes climate-smart microfinance for smallholders.

Kenya

Insurance firms in Kenya offer weather-index insurance to farmers

Other countries are piloting adaptation finance
For example, some cities issue green bonds for flood control

Recommendations & Call to Action

1

Scale public support
Wealthy nations must honour climate finance pledges (Paris/COP commitments) and treat adaptation aid as obligatory “climate justice.” Public funding needs to grow to complement and de-risk private investment.

2

Enable private investment
Governments and MDBs should create an enabling environment – strengthen climate risk disclosure, standardize adaptation finance definitions, and build clear pipelines of projects. Increased transparency and common metrics are crucial, so investors understand climate risks and returns . Regulatory incentives (tax credits, mandates) and credit guarantees can further attract private capital.

3

Promote blended instruments wisely
Use concessional funds strategically to leverage private capital but be realistic about leverage ratios . Design blended funds, guarantees and guarantees programs focused on adaptation sectors (e.g., resilient infrastructure, climate-smart SMEs). Ensure that public money truly unlocks new investment rather than crowding out private funding.

4

Invest in capacity and innovation
Provide technical assistance and financial expertise to develop bankable adaptation projects (e.g. training local banks in climate risk finance). Support accelerators and incubators for climate-resilient businesses, especially in developing countries . This builds long-term pipeline of investable projects.

5

Collaborate across sectors
NGOs, multilateral organizations, governments and the private sector must partner on adaptation. For example, city governments can engage investors with public-private partnerships for resilient infrastructure. Corporations should integrate resilience into supply chains and risk management.

6

Prioritize equity and effectiveness
Ensure adaptation finance reaches the most vulnerable communities. Favor grants or highly concessional terms for Least Developed Countries and smallholder farmers. Align adaptation investments with local needs and co-benefits (e.g. women’s empowerment, biodiversity).

7

Act now
The window is short. Mobilizing adaptation finance is not just a moral imperative but an economic one – delayed adaptation causes irreversible losses. All actors must act today: scale up resources, innovate finance, and make climate resilience a core investment priority.

Thank you

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