Designing a Bankable Climate Resilience Project

David Hebart-Coleman, Climate Change and Water Resources Expert, African Water Facility
Session 3. Overview

- Climate Finance Basics
- Climate Change
- Definitions
- Needs v. Availability of finance
- Landscape of finance flows and instruments
Bankable Adaptation Project

A bankable transboundary climate adaptation project:

- States anticipated climate impacts, including at basin level and supported by scientific findings, that are directly addressed by the project
- Includes compelling arguments for a transboundary approach, rather than national action
- Aligns with and supports relevant national, regional, global climate and development policies
- Matches the financing institution and/or partner’s objectives
- Addresses project risks
Climate Change and Water

Water is the main medium through which climate change makes its impact known.

Climate change multiplies the complexities and intensity of water related development challenges.

 Leads to changes in water resource supply patterns (e.g. water access) and water resource demands (changing crops, increased water storage needs etc.)

Global attention has resulted in a raft of initiatives and finance sources, including through national, regional and international sources.
A changing climate leads:
• Threshold changes in mean, variability and extremes
• Changes in frequency, intensity, spatial extent, duration of extreme climates
• Timing of extreme events can result in unprecedented extreme climate events.
Climate disasters occur when extreme climatic events interact with vulnerable social, economic and environmental conditions leading to severe alterations in normal functioning of a community or a society.

- **Disaster risk** – intersection of exposure, vulnerability and hazard/extreme events
- Climate events affect vulnerability to future extreme events by modifying resilience, coping capacity, and adaptive capacity.

Source: IPCC, SREX 2013
Climate Change vs Development

• Adaptation Finance v. Development Finance

• Access, Accounting, Transparency

• UNFCCC context – Article 4: Obligations of Developed Countries – “New and additional” – Oversight: UNFCCC >> Measuring Obligations – “Financial Mechanism” (incl. SCCF, LDCF, AF, GCF)

• Financing BEYOND the UN system – Private investments, Philanthropic, NGOs, other
Additionality

- Many funds only fund additional costs of responding to climate change.
- What would be happening if there were no GHG induced climate change?
- What is happening / will happen due to climate change?
- What extra impacts need to be addressed?
- Very important to clearly differentiate between development and climate change costs for many funds.
Adaptation v. Resilience: IPCC

• Adaptation: In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities.

• Resilience: The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.

Building resilience of communities and ecosystems amongst most effective means of adapting to climate change.
Exercise

1. ADAPTATION OR RESILIENCE  Drought resilient crop substitution a) Person 1 describe this as an Adaptation project b) Person 2 describe this as a Resilience-building project

2. DEVELOPMENT OR CLIMATE?  Installation of irrigation system a) Person 1 describe this as a Development Project b) Person 2 describe this as a Climate Change Project
Landscape of climate finance flows & instruments

Where to go?
Accessing Finance

- Cost of responding to climate change increasing annually
- Availability of funding increasing annually
- Financing can be sourced from international, regional, and national options - Complex
- Public, Private, or Blended sources
- For mitigation & adaptation activities
- But most new funds have single country focus
- Few funds envisage funding projects across borders
- Accredited entities
Funds v. Donors

- **FUND** - Pool of funding made available for a specific purpose by an agency, organization, foundation, government, private institution, private party. Multilateral Development Funds, Private Foundations, etc.

- **DONORS** – Institutions, Governments, Foundations, People who contribute/donate funding or other resources to people, communities, governments, causes.

* See list of funds in Publication
Financing to Scale

- By 2020, about $5.7 trillion will need to be invested annually in green infrastructure, mostly in the developing world. (WEF)

- Require shifting the $5 trillion in business-as-usual investments into green investments + additional $700 billion to ensure shift

- We are currently at roughly $360 billion annually. Developed country governments providing $10-20 billion per year (CPI).

- Both public and private levels of funding need growth.
Financing Adaptation and Resilience

• As climate change becomes more severe than originally projected, estimated adaptation finance needs for developing countries are doubling or tripling every few years.

• UNEP Adaptation Gap report: cost of adaptation in developing countries estimated to reach $280 and $500 billion p/year by 2050 (4-5 times greater than previous estimates).

• Developing countries need to be more resourceful in accessing existing funds, leveraging new finance, and working strategically with national/regional development plans, budgets and resources to meet increasing needs.

• Competition for funding is high as demand exceeds both current and projected availability.
Global Climate Finance Architecture

Source: https://climatefundsupdate.org/global-climate-finance-architecture/
LANDSCAPE OF CLIMATE FINANCE IN 2015/2016

Global climate finance flows along their life cycle in 2015 and 2016. Values are average of two years data, in USD billions.

**Sources and Intermediaries**
- Which type of organizations are sources or intermediaries of capital for climate finance?
- Government Budgets $31
  - Agencies $3
    - Development Finance Institutions
      - National $58
      - Bilateral $19
      - Multilateral $46
      - Climate Funds $2
    - Commercial Financial Institutions $62
      - Institutional Investors $2
      - Private Equity, Venture Capital, Infra. Funds $1
    - Corporate Actors $37
    - Households $31
      - Project Developers $137

**Instruments**
- What mix of financial instruments are used?
- Grants $14
  - Low-cost Project Debt $42
    - Project-level Market Rate Debt $142
    - Project-level Equity $38
      - (equity) Balance Sheet Financing $167
      - (debt)
- Unknown $5

**Recipients**
- Does climate finance go through public or private channels?
- Public $52
  - Private NGOs and Foundations $2
  - Unknown $63
  - Unknown $63
- Public/Private $4
  - Private $288
  - Private $288

**Uses**
- What types of activities are financed?
- Adaptation $22
  - Dual benefits $5
  - REDD $51
  - Mitigation $382

**Key**
- Public Money
- Private Money
- Public Financial Intermediaries
- Private Financial Intermediaries
- Finance for Investors & Lenders
- NE: Not Estimated
Adaptation and Mitigation

Mitigation

1a) Emission trajectory for the relevant country and sector
1b) Pathways to shift emissions trajectory

Adaptation

1a) Climate impacts the project/programme aims to address
1b) Hazard, exposure and vulnerabilities resulting in risks

2) Prioritized interventions for addressing barriers based on a multi-criteria analysis of options

3) Integration to broader domestic and international policy and decision-making processes
Mitigation Sector

For public actors, mitigation finance for energy efficiency exceeded renewable energy generation spending for the first time in 2015/2016 (USD billion, annual average)

- Energy efficiency: 39
- Renewable energy generation: 34
- Sustainable transport: 22
- Others / cross-sectoral: 7
- Transmission & distribution systems: 5
- Agriculture, forestry, land-use, and natural resource management: 3
Adaptation Sector

For public actors, adaptation finance is less than 1/5\textsuperscript{th} of total public spending (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Adaptation</th>
<th>Dual benefits</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>27</td>
<td>4</td>
<td>112</td>
</tr>
<tr>
<td>2014</td>
<td>26</td>
<td>4</td>
<td>117</td>
</tr>
<tr>
<td>2015</td>
<td>22</td>
<td>5</td>
<td>111</td>
</tr>
<tr>
<td>2016</td>
<td>23</td>
<td>6</td>
<td>112</td>
</tr>
</tbody>
</table>

For public actors, 51\% of adaptation finance went to water and wastewater management in 2015/2016 (USD billion, annual average)

- Water and wastewater management: 11 billion
- Agriculture, forestry, land-use, and natural resource management: 4 billion
- (Other) Disaster risk management: 2 billion
- Others / cross-sectoral: 2 billion
- Infrastructure, energy and other built environment: 1 billion
- Coastal protection: <1 billion
Receiving States

Approved Project Spending by Country

- Angola: $28mn
- Benin: $32mn
- Burkina Faso: $29mn
- Ghana: $23mn
- Chad: $22mn
- Lesotho: $35mn
- Mauritania: $34mn
- Niger: $167mn
- Mozambique: $141mn
- Rwanda: $56mn
- Somalia: $18mn
- Togo: $23mn
- Uganda: $76mn
- Malawi: $46mn
- Mali: $70mn
- Somalia: $18mn
- Senegal: $73mn
- Sierra Leone: $28mn
- Namibia: $28mn
- Comoros: $28mn
- Guinea: $15mn
- Kenya: $29mn
- Madagascar: $29mn
- Eritrea: $19mn
- Sao Tome and Principe: $19mn
Articulating the climate rationale of Proposed Interventions

1. **Data & information** to describe the climate impact projections, vulnerabilities and assess responses to reduce climate risk.

2. **Climate impact**: Identify climate change impacts and related risks that might prevent project objectives from being achieved.

3. **Identifying vulnerabilities**: Describe the likely development and climate change related vulnerabilities.

4. **Assessing responses to reduce climate risk**: Describe optimal interventions/proposed measures to address the risks that could be incorporated into project design.

5. **Attributing development vs. climate adaptation/mitigation benefits**.
Robust Climate Rationales

- Credible science, robust assessment of impacts and disaster risks (IPCC)
- A set of optimal interventions that comprehensively addresses underlying climate risks
- Integrating interventions into decision-making for long-term low-emission climate resilient development

Decision Support System for transboundary Volta Basin
(Source: GLOWA-Volta Basin Project)
Building resilience to climate change in transboundary waters

Climate impacts
- Aridity
- Flooding
- Droughts
- Hydrological variability
- Temperature

Vulnerability to climate impacts
- Economic systems related to energy, irrigation, municipal supply, industrialization and navigation
- Livelihood systems related to small-holder farming, fisheries and settlements
- Natural systems related to biodiversity, ecosystems goods & services and catchment land

Water-related actions needed at multiple levels
- Information
- Institutions
- Infrastructure
- Regional actions
- National actions
- Local actions

Develops resilience characteristics in water management systems
- Preparedness
- Robustness
- Diversity & Redundancy
- Integration & Connectedness

Leads to overall systemic resilience
- Adaptation to maintain function
- Transformation to a better system

Climate impacts result in vulnerabilities of different systems, depending upon their sensitivity and adaptive capacity.

Water information, institutions & infrastructure actions are required to manage hydrological variability to reduce sector vulnerability.

Integrating resilience into water management systems enables economic, livelihood and natural systems.

Climate Finance Funding

- Following administrative requirements of the Fund
- Identify risks
- Alignment with national, regional and international agreements
- Co-Benefits
- Clustering projects to reduce transaction costs
Financing Adaptation and Resilience

Estimated Adaptation Costs for Africa

- "4°C world" (RCP8.5)
- Policy Reference
- Current Pledges
- "2°C world" (RCP2.6)

Total of Adaptation and Residual Damage costs for Africa (2100) excluding from sea-level rise

- Further rise in costs due to inadequate adaptation
- Rise in costs due to inadequate mitigation

Percentage of GDP Africa

- "2°C World" with adaptation
- Policy Reference with adaptation without adaptation
Key Funds

Source: Climate Funds Update
## Accredited Entities

### Sample of Accredited Entities

<table>
<thead>
<tr>
<th>Type of Entity</th>
<th>Name</th>
<th>Largest Project Size (limited to Projects above US$100 million)</th>
<th>Regional Development Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>World Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>European Investment Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Inter-American Development Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Asian Development Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>African Development Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Agence Française de Développement (AFD)</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Afrexim Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Credit Agricole</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>ISSC</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Islamic Development Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>European Investment Bank</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>International Finance Corporation</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Export Credit Agency of China</td>
<td>medium A</td>
<td>A</td>
</tr>
<tr>
<td>International</td>
<td>Commonwealth of Nations</td>
<td>medium B</td>
<td>B</td>
</tr>
<tr>
<td>International</td>
<td>UNDP</td>
<td>medium B</td>
<td>B</td>
</tr>
<tr>
<td>International</td>
<td>International Union for Conservation of Nature</td>
<td>medium B</td>
<td>B</td>
</tr>
<tr>
<td>International</td>
<td>UNCTAD</td>
<td>medium C</td>
<td>C</td>
</tr>
<tr>
<td>International</td>
<td>International Trade Organization</td>
<td>small C</td>
<td>C</td>
</tr>
<tr>
<td>International</td>
<td>World Bank Program</td>
<td>medium C</td>
<td>C</td>
</tr>
<tr>
<td>National</td>
<td>India - National Bank of Agriculture and Rural Development</td>
<td>large D</td>
<td>D</td>
</tr>
<tr>
<td>National</td>
<td>Ethiopia - Ministry of Finance &amp; Economic Cooperation</td>
<td>small E</td>
<td>E</td>
</tr>
<tr>
<td>National</td>
<td>France - Ministry of Natural Resources</td>
<td>small F</td>
<td>F</td>
</tr>
<tr>
<td>National</td>
<td>Venezuela - Agency for Agricultural Development</td>
<td>small G</td>
<td>G</td>
</tr>
<tr>
<td>National</td>
<td>Senegal - Centre de la Sociologie</td>
<td>small H</td>
<td>H</td>
</tr>
<tr>
<td>National</td>
<td>India - National Bank for Agriculture and Rural Development</td>
<td>small I</td>
<td>I</td>
</tr>
<tr>
<td>National</td>
<td>Brazil - National Bank for Agriculture and Rural Development</td>
<td>small J</td>
<td>J</td>
</tr>
<tr>
<td>National</td>
<td>Argentina - Rural Credit Agency</td>
<td>small K</td>
<td>K</td>
</tr>
<tr>
<td>National</td>
<td>Kenya - Environment Management Authority</td>
<td>small L</td>
<td>L</td>
</tr>
<tr>
<td>National</td>
<td>South Africa - Development Bank of South Africa</td>
<td>large A</td>
<td>A</td>
</tr>
<tr>
<td>National</td>
<td>Brazil - National Bank for Agriculture and Rural Development</td>
<td>small M</td>
<td>M</td>
</tr>
<tr>
<td>National</td>
<td>Caribbean Community Climate Change Center</td>
<td>small N</td>
<td>N</td>
</tr>
<tr>
<td>National</td>
<td>African Development Bank</td>
<td>small O</td>
<td>O</td>
</tr>
<tr>
<td>Regional</td>
<td>Development Bank of Latin America (CAF)</td>
<td>large A</td>
<td>A</td>
</tr>
</tbody>
</table>

*Note: The table includes a list of entities and their corresponding project sizes and regional development categories. The project sizes range from small to large, with categories ranging from A to O. The development bank of Latin America (CAF) is also listed with a large project size.*

Medium projects are between US$20 million and US$50 million; large projects are above US$50 million.
World Bank

1. Country Assistance Strategy
The World Bank proposes financial, advisory and technical services to help countries identify their priorities and reach their main development goals.

2. Identification
Ideas for creating meaningful change are discussed. Borrower and Bank representatives weigh development objectives and project impacts, risks, alternatives and timetable.

3. Preparation, Appraisal and Board Approval
With advice and financial assistance from the Bank, the Borrower conducts studies and prepares detailed project documentation. The Bank assesses the economic, technical, institutional, financial, environmental and social aspects of the project.
When the Bank and the Borrower agree on the terms of a loan or credit, the project is presented to the Bank’s Board of Executive Directors for approval.

4. Implementation and Supervision
The Borrower implements the project, issuing contracts through a competitive bidding process that follows the Bank’s procurement guidelines. World Bank staff periodically supervises the project to make sure that the loan proceeds are used for intended purposes and with due regard for economy, efficiency and effectiveness.

5. Implementation and Completion
At the end of the loan or credit disbursement period (anywhere from 1-10 years), a completion report identifying project results, problems and lessons learned is submitted by operations staff to the Bank’s Board of Executive Directors for information purposes.

6. Evaluation
After a Borrower completes a project, the Bank’s Independent Evaluation Group (IEG) measures the outcomes against original objectives and assesses whether or not the project’s results can be maintained over the long term. A number of projects are further scrutinized in detailed impact evaluation reports.
European Investment Bank
African Development Bank

Project Cycle

- Project identification
- Project preparation
- Project appraisal
- Loan negotiation
- Board approval
- Loan signing
- Loan effectiveness
- Implementation
- Post evaluation
Adaptation Fund

A: Submission of the project or programme to the AFB secretariat using templates approved by the AFB

B: Screening for consistency and technical review by the secretariat

C: Review by the Project and Programme Review Committee. Can use services of independent experts

D: Decision-making by the AFB

E: Contracting by the AFB. Disbursement of funds by the Trustee upon written instruction by the AFB.

F: Project implementation and monitoring by the Implementing Entity

ALL PROJECTS: ANNUAL STATUS REPORTS AND TERMINAL EVALUATION REPORTS
Accessing AF funding

For projects larger than USD 1M, a choice of a one step (full proposal) or two step process (concept approval and project document).

For small-scale projects (below USD 1M) one-step process.

Option to provide Project Formulation Grant to NIE proponents of endorsed concepts; for MIEs under discussion.

Proposals to be endorsed by a Designated Authority. As of today, 50 countries have nominated one.

Proposals need to be submitted at least 9 weeks before a Board meeting.

<table>
<thead>
<tr>
<th>Direct Access Modality</th>
<th>MIE Access Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct submission to AFDB through NIE</td>
<td>Parties can submit their proposals through an accredited MIE</td>
</tr>
<tr>
<td>Nomination by Parties of regional and sub-regional entities as implementing entities in lieu of NIE</td>
<td></td>
</tr>
</tbody>
</table>

\* A Party nominates a National Implementing Entity or it may also nominate a Multilateral entity.
Questions

- Discussion
- Barriers & Challenges
- Q & A