

Mobilizing Private Capital for Climate Adaptation Infrastructure

ICLEI Financing Resilient Infrastructure Project (FRIP)

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Understanding Bankability of Climate Adaptation Infrastructure Projects

Quantitative and qualitative factors investors may consider:



Investment scale

----- How big is the project? Is the scale of my potential investment sufficient to justify my due diligence / transaction costs?



Financial returns

----- How can we generate/harvest cashflows to pay back investors? (Note: cash flows can arise directly, indirectly, or independent of the infrastructure)



Risk to returns

----- Investors must be able to assess risk, in particular the risk of those future flows of cash not materializing. The higher the risk, the higher the return the investor requires.



Social
returns/'Impact'

----- What positive impacts will the project create for society?
Do those 'social returns' fit my investment mandate? Do I get 'credit' for achieving positive impact?

How Cash Flows Arise from Adaptation Infrastructure

| Cash flow genesis | Explanation | Examples |
|--|---|--|
| Direct cash flows from resiliency infrastructure | Flow directly to infrastructure owners or the beneficiaries of the infrastructure as a result of its existence | User fees, insurance premium reductions, other revenues (e.g., sale of electricity from a turbine in a dam system that mitigates flood risk) |
| Indirect cash flows from the infrastructure but dependent on it | The existence of the infrastructure may enable a public entity to enact a cash-generation mechanism that can flow to investors | Avoided mop-up costs, enhanced infrastructure reliability, development cost charges, local improvement charges, tax-increment financing |
| Cash flows that are independent from the infrastructure | A public entity may generate cash (that flows through to investors by agreement) by means completely independent of the resiliency infrastructure | Taxes, general operating revenues, transfer from other orders of government |

Source: [CCI 2023](#), citing Alvarado & Welch 2022

Key Questions to Ask:

1. *Beneficiaries:* Who will benefit from enhanced resilience?
2. *Concentration:* For each category of benefit, how concentrated is the benefit among citizens/stakeholders?
3. *Quantification & Cash-ability:* Can the benefits be quantified and monetized? What is their financial value?
4. *Harvestability:* Can that financial value be aggregated and harvested in some way?

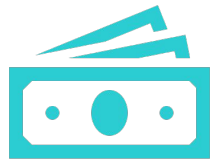
Unpacking a Few Examples

Municipal Cash Flow 'Harvesting' Mechanisms

1. *Incremental fees*: Adaptation infrastructure interventions can lead to changes in or the imposition of fees, which are a source of cash flow; these may be applied in different ways (e.g., via a utility, on property tax bills).
2. *Additional development cost charges*: Recovering the value of property increasingly at risk, or the development of previously flood-prone land thanks to an adaptation infrastructure intervention may give rise to incremental development cost charges.
3. *Tax-increment financing*: Enables a municipality to collect up front a future increase in property tax resulting from an improvement; could enable a cash flow derived both from rising property values in a catchment area and from an incremental new tax base arising from development that's enabled by the presence of adaptation infrastructure.
4. *Transfer payments from other orders of government*: When municipalities build resilience, other orders of government also benefit—for example through enhanced reliability of critical infrastructure, to avoided mop-up costs after disasters. A portion of those financial benefits could be shared with municipalities through transfer payments.

Illustrated Model for Flood Protection

Infrastructure Investor



Municipality



River berm & wetland



Local Beneficiaries
(households, community, industry)

Insurers



① Investor Capital

② Infrastructure investment

③ Co-benefits & cost avoidances

⑥ Interest and/or performance payments

⑤ Utility fees, area levies, special taxes, etc

③ Performance Certification + Reduced Claims

③ Enhanced Resilience of public and private assets

⑥ Other value payments or attribution (if applicable)

④ Flood insurance cost relief (partially offsets new infrastructure cost)