



OPR Adaptation Financing Guide Overview

Central Coast Region |
Building Resilience Workshop
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Integrated Climate Adaptation and Resiliency Program (ICARP)

Purpose

Coordinate state, tribal, local, and regional activities with a focus on **local implementation**

Cross-cutting objectives

Advance **equity and environmental justice**

Support an **integrated** approach to climate change (adaptation and mitigation)

Programmatic elements

Adaptation Clearinghouse

Technical Advisory Council (TAC)



ICARP: Adaptation Funding, Finance & Investment

Partnership with Federal Reserve Bank of San Francisco

- Strengthen climate adaptation investment
- Equity “lens” – ensuring investments benefit low-income and disadvantaged communities
- Public-private relationship building

Partnership with Harvard, Development of Adaptation Investment Framework (Jesse Keenan)

- Practical guide for local governments to engage in adaptation investments



One of the challenges...



Adaptation Principles (Executive Order B-30-15)

Prioritize *Natural and Green Infrastructure*

Protect the most *vulnerable*

Integrate mitigation and adaptation to the fullest extent possible

Coordinate with local and regional partners

Base decisions on *best available science*



Reconcile Principles of Economy Theory?

Prioritize *Risk-adjusted Returns*

Protect the most *vulnerable*, if they represent a viable demand

Integrate public risk taking and private return

Coordinate with counterparties only

Base decisions on *proprietary data*



Some more challenges...



Adaptation Financing Challenges

- **Variability** in Climate Projections
- Limited **Guidance** on Integration of Adaptation
- Limited **Flexibility** in Existing Funding Sources
- Limited Resources for **Interjurisdictional** Action
- Limited Opportunities to **Grow Funding**
- Absence of an Adaptation Financial **Market**

Source: Draft and undergoing peer review, *Overcoming Financial and Institutional Barriers to Implementing Local Government Adaptation Strategies 4th Assessment Survey Results (2017)*





Step 1: Identify the right questions

Federal Reserve Convenings



Adaptation Financing Challenge questions

- **Variability** in Climate Projections
- **Limited Guidance** on Integration of Adaptation

Local example: SF Seawall Fortification

- Are there existing methodologies for scoping out investment decisions (costs) within the context of uncertain conditions (challenge of putting together a General Obligation Bond within the context of changing climactic conditions)?



Adaptation Financing Challenge questions

- Limited **Flexibility** in Existing Funding Sources

Local example: SF Seawall Fortification

- What complementary [funding] policies are needed to mitigate potential displacement of low and middle-income communities resulting from public infrastructure investments?



Adaptation Financing Challenge questions

- Absence of an Adaptation Financial **Market**

Emerging or novel “mechanisms” are untested, lack performance data, and may not be feasible in the near term. Difficult to get private financial return-based market to the table without a clear value proposition and proof of concept.

Example: Ocean Protection Council Pilot Concept

- What is the role of the public sector and how can an agency learn from experiments to better manage its portfolio and pilot “new” tools?



Step 2: Develop a Guide
*OPR Financing Framework, Harvard
Research Team*



Adaptation Finance & Investment Guide

Conceptual Framing

- Terms & trade-offs

Understanding Impacts: Financial and Fiscal Considerations

- Estimating need

Financing and Funding Adaptation

- Typology of financing and revenue sources
- Stakeholder roles (public, private, public-private)
- *Translate adaptation efforts to underwriting and performance criteria*

Ensuring Equitable Outcomes

- Context setting and underwriting criteria

Assessing and weighting finance options

- Evaluation tool



Emerging (anecdotal) findings

Need for a new market: identified as a challenge, but maybe greater short-term potential for adjustments to existing mechanisms

Growing funding: requires political will and community support, critical to build a compelling narrative that resonates with local need and context

Need for a “single” cost estimate: not useful for framing or building public support, also very inaccurate; better use of time to integrate climate considerations using more specific project- or issue-based scale.

No panacea...



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