

The Disaster Resilience Scorecard for Cities - Action Guide

Chapter 4:
How to finance projects
derived from the action plan

Consultation Version
January 2024

The Disaster Resilience Scorecard for Cities – Action Guide

Chapter 4: How to finance projects derived from the action plan

The Guide is a result of contributions from the ARISE-US Network in collaboration with the United Nations Office for Disaster Risk Reduction (UNDRR) and the Making Cities Resilient 2030 (MCR2030) initiative.

The [UNDRR Disaster Resilience Scorecard for Cities](#) is proven to be a very helpful tool in assessing all the 'systems of systems' aspects of disaster resilience and creating a holistic 'baseline' of city's strengths and weaknesses. While it helps cities identify gaps and potential areas of improvement, it is less effective at helping cities prioritize and figure out next steps. Based on results from a survey and feedback from local governments and stakeholders, this Action Guide aims to provide 'how-to' steps to support local governments in developing and implementing an action plan to address gaps identified in their resilience strategies based on the assessment results from the use of the UNDRR Disaster Resilience Scorecard for Cities.

The Action Guide has a number of chapters:

- Chapter 1 – Overview of the survey results
- Chapter 2 – How to create a prioritized action plan and prepare projects
- Chapter 3 – How to engage with the community
- Chapter 4 – How to finance projects derived from the action plan (this chapter)
- Annex – Compendium of Standards that are applicable for cities

For more information:

ARISE – Private Sector Alliance for Disaster Resilient Societies

<https://www.arise-us.org/about-us>

Making Cities Resilient 2030 (MCR2030)

<https://mcr2030.undrr.org/>

United Nations Office for Disaster Risk Reduction (UNDRR)

<http://www.undrr.org>

Disclaimer:

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities or concerning the delimitations of its frontiers or boundaries. Views expressed in the document are those of the authors and do not necessarily reflect those of the United Nations or its Member States. Mention of the names of firms and commercial products does not imply the endorsement of the United Nations.

Table of Contents

Contributors to this chapter (in alphabetical order of last name).....	4
4.1 Introduction and Purpose.....	5
4.2 Key Considerations	6
1) Funding Sources and Types	6
2) Community Team Finance Expertise.....	10
3) Community Credit Status	12
4) "Bankable" projects.....	13
5) Resiliency Co-Benefits or "Dividends"	16
4.3 Strategies	19
Strategy 1) Look Local and Keep it Simple	19
Strategy 2) Create a Financial Plan	20
Strategy 3) Outreach for Funding Expertise.....	22
Strategy 4) Community Partnering.....	24
Strategy 5) Project Oversight.....	25
Strategy 6) Prioritize by Fundability.....	26
Appendix 4.1 – Worksheets	28
Worksheet 4.1 – Possible Funding Sources.....	29
Worksheet 4.2 – Community Finance Team Expertise	30
Worksheet 4.3 – Community Credit Status	31
Worksheet 4.4 – Creating a Bankable Project.....	32
Worksheet 4.5a and 4.5b – Identifying Resilience Dividends.....	33
Appendix 4.2 – References	35

Table of Figures

Figure 1: Project Funding Types.....	6
--------------------------------------	---

Contributors to this chapter (in alphabetical order of last name)

- Chibby Alloway
- Sanjaya Bhatia, UNDRR / MCR2030
- Claudia Brenner, Crowddoing
- Joyce Coffee, Climate Resilience Consulting
- Todd Fein, Green Diamond
- Debbra Johnson, Debbra AK Johnson LLC
- Shefali Lakina, Wonder Labs
- Adam McAllister, ARISE Canada
- Mutarika Pruksapong, UNDRR / MCR2030
- Ben Ryan, Belmont University
- David Savarese, Jacobs Engineering
- Peter Williams, Peter Williams Solutions LLC

4.1 Introduction and Purpose

As extreme climate and weather events continue to increase in number and severity, and as populations grow, all communities face potential needs for spending on adaptation and mitigation projects. It has been reported by the Global Commission on Adaption that, a \$ 1.8 trillion investment in climate change adaptive projects would provide \$ 7.1 trillion of disaster relief and associated community benefits globally¹: this is a 4:1 ratio. While this suggests that investing in resiliency should provide economic and societal returns, investment may still be hard to secure: return periods may be too long or the specific returns may not be sufficient in absolute terms or relative to risk. Disadvantaged communities and developing countries generally face additional funding approval difficulties. As an additional burden the value of these communities' assets typically is lower and thus there is less financial support and incentive for investments. These same communities have larger resilience investment backlogs and fewer opportunities to learn and apply best practices.

The primary purpose of this section of the Scorecard Action Guide is to help communities (defined as any unit of settlement seeking finance, from "village" through "suburb" to towns and cities or municipalities), and their teams who may have no finance expertise, create such a plan. It explains the types of funding available, presents opportunities for securing funds, sets out ideas for how to proceed and provides checklists for evaluating how well their particular resilience project matches the fund providers' expectations and requirements.

As noted, securing funding has proven difficult for communities. We review the full range of difficulties in this section as we want to provide a complete picture of options. We strongly suggest that communities do not just reach out automatically to international funders. Acting with local funders and finance options is not only simpler but can offer a higher potential of success.

When you have studied this Chapter, you will be able to:

- Find, and evaluate the applicability of, sources of funds that may be available for your project, ranging from local and simple, to internationally supported and inherently more complex.
- Define a project to make it 'bankable' – that is, able to attract funds.
- Maximize your chances of securing the funding you seek, given your community's financial background.

This chapter assumes you have read the previous chapter in the Scorecard Action Guide, particularly Chapter 2 – How to create a prioritized action plan and prepare projects. Additionally, at the end of the document, you will find some worksheets that will help structure your thinking on the issues involved.

In a recent survey of past UNDRR Scorecard users, a large majority (70%) indicated that they have not completed the resiliency projects they have targeted, because of a lack of funding. There were three reasons why respondents reported funding difficulties:

1. *Funding for projects is too complex for local stakeholders to decipher.*
2. *Scorecard and resilience teams did not have sufficient knowledge, internal & external resources, and fiscal expertise (capacities).*
3. *Over 85% of responding communities had not developed a set of financial goals or a companion tactical financial plan. Communities cannot succeed in the detailed world of capital financing without structured fiscal plans and a demonstrated fiscal payment track record.*

See Chapter 1 - Overview of the survey results for details.

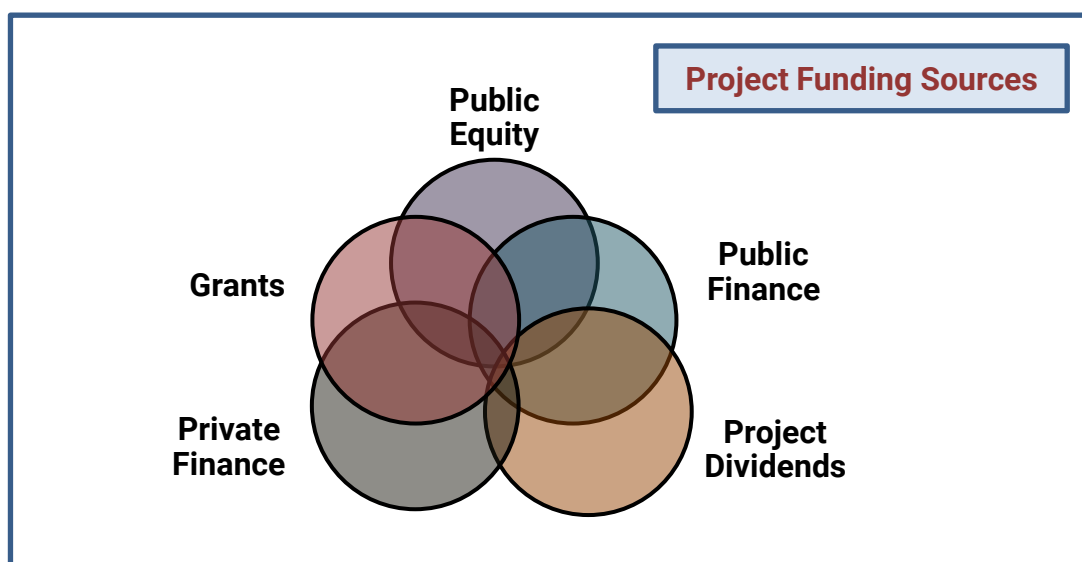
4.2 Key Considerations

1. Funding Types and Sources
2. Community Team Finance Expertise
3. Community Credit Status
4. “Bankable” Projects - those likely to be preferred by the financial community
5. Resiliency Co-Benefits or “Dividends”

1) Funding Types and Sources

Communities can fund their resiliency projects with many different sources. The most common categories are illustratively shown in Figure 1. This diagram shows the common funding sources as equals, but this is never the case. Each community can construct its own Venn diagram based on the types of funding best suited to its financial situation and the scope and cost of the resiliency project.

Figure 1: Project Funding Types



The description of the five common funding sources are as follows:

- **Public equity** – principally, bonds issued by the community and/or by other tiers of government, to be repaid from taxation. This is the commonest method of capital funding for many governments world-wide. Bond holders are often attracted to local community organizations promoting resiliency project solutions. Exploring this local or “public” connection can offer easier funding. Keep private individuals in mind too: in the US, households hold 40% of municipal bonds, making them the largest single group. In countries where a similar ratio applies, bonds can be thought of as a form of crowd funding.
- **Public finance** - loans provided by non-private sources such as development banks or aid agencies; or by, say, community development agencies from higher levels of government. These may take the form of green bonds or resiliency bonds, covered below.

- **Grants** - are available for resiliency projects from a number of NGOs, foundations, and governmental organizations, for both in-country deployment and communities outside of their home jurisdiction. The World Bank manages a large grant-like program via its Umbrella 2.0 Trust Program²: this program provides funds for a variety of improvement projects – including climate change responses - directly, and also for others with tangential connections, such as agriculture. In the US, a number of federal and state agencies have sponsored grants. Note that in many countries there is a specific type of consultant that specializes (for a fee) in finding and applying for foundation and NGO grants. Grants may be "matching" grants - they are provided on the condition that the community can match them with funds of its own. Also, many foundations do not fund operating expenses, so these may need to be addressed separately.
- **Private financing** – provided by the private sector, coming principally from banks. However, other possible sources include private equity, which may for example invest in infrastructure; and social benefit enterprises or regular private companies may contribute in-kind (time, skills, facilities) or with loans or grants of their own. Many larger companies will also have their own charitable foundations which may support resilience projects financially or in-kind. With any form of loan, the community will need to demonstrate its creditworthiness to support the amount loaned. Loan repayment may be financial or, potentially, in the form of carbon credits arising from the projects (or both).
- **"Dividends"** or co-benefits – Dividends arise where funding for non-resilience purposes also has resiliency benefits which may improve the business case; or where resilience-directed funding also confers other benefits for the community not directly related to resilience - which may attract further funding. Dividends will in many cases be identifiable within your community which may make them easier to identify and agree with the other parties involved than applying for some of the more specialized and international sources of finance. (Dividends are returned to below.)

This range of existing resources is both beneficial and problematic. It is beneficial because it clearly increases the number of options available. It is problematic because it adds layers of complexity and thus difficulty for communities in weighing options and pursuing and securing funding. From experience using the UNDRR Disaster Resilience Scorecard for Cities³, and also from our own survey results, it is evident that many cities do not exhaustively explore the range of funding options open to them, beginning with the easiest and most local, and only then extending the search to international instruments. [Worksheet 4.1](#) will help you review which funding sources apply.

Even within one category the range of options can be overwhelming. As a case in point, in the US, the Federal Emergency Management Agency (FEMA) listed over 20 different federal funding programs offered in 2022. Each program has different definitions, requirements and application processes. These funding complexities appear to have influenced survey responses with a majority of respondents indicating a desire for guidance and trusted assistance to identify, evaluate, apply, and secure funding for their resiliency projects.

Green Funding

Green funding is a theme that has emerged in the last 10-15 years that embraces many of the funding types just discussed. Their relevance to disaster risk reduction (DRR) projects is that disaster mitigation and climate adaptation projects are frequently both resilient and sustainable ("green"), at least in some measure, which opens up green bonds as a source of funding for a community's resilience projects.

There is a rating and certification agency specific for Green and similar type bonds:

The Climate Bonds Initiative (CBI) launched the [Climate Bonds Standard and Certification Scheme](#) for bonds and loans⁶. Their criteria for rating and funding projects can provide additional information to potential project recipients as they draft funding request documents. Additionally, they provide an on-line training course⁷ for Green Bonds for interested community leaders.

The International Capital Market Association (ICMA) also established common guidelines for Green Bond financing. Their guidelines are documented within their [2021 Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds](#)⁸.

These voluntary guidelines provide a good reference point for communities to assess themselves as a reliable entity for funding and also gauge the potential funding interest for their local resiliency project.

"Green Bonds"⁴ sometimes called resilience bonds where directly focused on DRR, are a specialized form of loan for green/resiliency project financing, from the same general family as "Climate Bonds" which fund projects related to removing carbon dioxide (CO₂) and methane (CH₄) emissions, and remedying climate change issues. These bonds may have an attractive enhancement for the borrower, namely the tax incentives they may provide. In 2020 total issuance of green bonds exceeded \$270 billion worldwide⁵.

The World Bank is a major issuer of Green Bonds supporting transportation, agriculture, and land use projects, and its issuance alone from 2018-2022 exceeded \$14 billion. The World Bank has a set of guidelines that are used to rate project risk and reward, which provide a roadmap as a community develops its project funding submittals⁶.

Another form of green funding is *Emission Reduction Payment Agreements (ERPAs)*. Many resilience projects (for example reforestation, wetland restoration, or wildfire risk reduction through better forest management), also have environmental benefits such as reducing greenhouse gas (GHG) emissions. ERPAs are contractual repayment agreements to deliver verified carbon credits to another at an agreed price. These agreements allow a community to minimize its initial fiscal outlay (because the project is funded by the ERPA).

As an international example, in Madagascar a company that sells ethanol cookstoves partnered with an emission credit purchaser. The cookstoves supplier replaces a home wood fire with a reduced-price ethanol unit - so reducing pressure on Madagascar's mangrove forests which improve coastal resiliency but which were being damaged in the hunt for firewood. An auditor confirms the sale and operation, and the resulting emissions reduction. After approval the cookstove supplier receives payment for the emission reductions which are used to fund the reduced stove payments. The World Bank, *Carbon Initiative for Development (Ci-Dev)*¹⁰, and *Forest Carbon Partnership Facility (FCPF)*¹¹ are entities which have experience with ERPA's. The arrangements typically are of longer term - 5-10 years.

The value of both pursuing combined resilience and sustainability funding has most recently been validated by the International Monetary Fund (IMF), which has approved a *Resilience and Sustainability Trust (RST)*. The RST complements the IMF's existing lending toolkit by focusing on longer-term structural challenges — including climate change and pandemic preparedness — that entail significant macroeconomic risks and where policy solutions offer a strong global public good¹². As of February 2023, six RST contribution agreements have been finalized.

At the Environmental Finance Center at the University of North Carolina (UNC), a flood-control project to restore wetlands with reconfigured topography and re-established plantings of native vegetation was costed, and the benefits were monetized in terms of reduced risk to economic activity in the area, the carbon sequestered in the wetlands, and the cost of providing the amenity of the wetlands by other means¹².

Communities will want to research funding sources available in their locale (city, state, nation), whether from internal, external or private sector sources. **Worksheet 4.1** will assist with this. The blank template is available in **Appendix 4.1**.

Worksheet 4.1: Possible Funding Sources		
<i>(Italic texts are examples)</i>		
Issue	Item	Community Response
Current baseline: Where are you starting from?	Financial review team	<i>(Incorporate findings from Worksheet 4.2)</i>
	Current fiscal plan and budget status	<i>Review and update community fiscal plan and make available to potential funders.</i> <i>Set out budgets and actuals/variances for the last 3 years. Document budget issues, if any.</i>
	Current credit rating(s)	<i>(Set out the community's credit/bond rating(s) - incorporate from Worksheet 4.4)</i>
	Current debt holders and types/sizes and maturity dates of loans	<i>Set out the community's loan and debt portfolio, including size, payment schedules and maturity dates of loans.</i>
	Review of current DRR projects	<i>For each project:</i> <i>Project purpose – adaptive or mitigation;</i> <i>Summary of goals, and target performance levels, as well as areas/segments of the community affected;</i> <i>Schedule/completion% to date vs target dates/%;</i> <i>Actual spend to date vs targets;</i> <i>Project performance (if known) v targets.</i> <i>Current debt providers and the type of loans, grants etc. Green or traditional should all be highlighted.</i>
	Summary review of total capital program (DRR and non-DRR)	<i>Demonstrate how financially sustainable your capital program is, and how well managed it is.</i> <i>Overview of all capital projects under way:</i> <i>Purpose;</i> <i>Size;</i> <i>Funding method;</i> <i>Completion date;</i> <i>Performance v schedule and budget;</i> <i>Performance v goals;</i> <i>Contact details for all loan providers.</i> <i>Summary – interest payments as % of revenue (operating) budget for last 3 years.</i> <i>A balance sheet type review of the fiscal standing along with any unusual or non-planned operational issues.</i>
If funding whole program: Review program	Registry of future DRR projects	<i>Set out total future DRR funding needs.</i> <i>For each future project, where known:</i> <i>Scope and objectives;</i> <i>Best available estimate of benefits to be delivered and business case/ROI;</i> <i>Best available timeline estimate;</i> <i>Best available cost estimate.</i> <i>Summary:</i> <i>Schedule of funding needed by when;</i> <i>Estimated interest rate burden (including stress-test – if interest rates double from current levels).</i>
If funding single project: Project summary	Summary of project to be funded and funding needs	<i>(Summarize from Worksheets 4.3 and 4.5)</i> <i>Project scope and objectives.</i> <i>Specific impact and ROI (including "dividend" benefits - non DRR benefits also delivered, where applicable, that may improve ROI):</i> <i>Include benefits to private sector organizations that they may be willing to pay for wholly or in part.</i> <i>Funding dividends (funding available from other sources that will reduce DRR funding needed).</i> <i>Funding gap for this project - DRR funds still needed.</i>

Worksheet 4.1: Possible Funding Sources (<i>Italic texts are examples</i>)		
Issue	Item	Community Response
Political preferences	Types of funding most likely to be organizationally, politically and electorally favored	- Confirm public and political preferences (if any) for funding types from: - Public Equity; - Public Finance; - Project Dividends; - Private Finance; - Grants. - What particular experiences are there with these funding types, good and bad, that may affect how people think about them? - Are matching fund offers likely to be acceptable and is the required match attainable?
Possible sources	"Long list" of funders	- Research a "long list" of possible funding sources. - Investigate each one and their lending/granting criteria for degree of "fit" with: - Your community's financial background as summarized above; - The nature of your project and your goals/objectives for it, also as summarized above; - Payment schedule for grants (these often have a yearly maximum).
	"Short list" of funders	Construct a "short list" from previous step and confirm application requirements.
Additional comments		

2) Community Team Finance Expertise

Many communities will not possess the skills they may need to access finance. Aside from DRR and project management expertise, relevant skills and knowledge may include the financial "landscape" just described, grant-writing (applying for grants and loans), accounting, project estimating, financial appraisal, and capital finance - even large city governments may not possess all of these. However, all local expertise will greatly enhance the community's funding propositions. "I live near that receding shoreline" or "I drink that water" are powerful verbal attributes that only local advocates can state.

Accordingly, the community may need to pursue one or more of:

- Have its own staff undertake training (as mentioned above, for example, the Climate Bonds Initiatives offers training, some universities offer classes in grant writing, and many partners of the Cities Climate Finance Leadership Alliance (CCFLA) offers capacity building support for project preparation¹⁴);
- Find skills among volunteers in the community;
- Hire the missing skills on a consulting basis;
- Partner with other communities in the area facing the same problem;
- Partner with a local university or universities;
- Partner with the private sector, perhaps a large local employer for example.

Worksheet 4.2 will help the community's resilience team assess skills needs. The issue of skills, and where to obtain them, is returned to under section 4.3 Strategies, below. The blank template is available in **Appendix 4.1**.

Worksheet 4.2: Community Finance Team Expertise		
<i>(Italic texts are examples)</i>		
Skill or Experience area	Skills and specific experience needed. (In all cases, it may require one or more people; in some cases, skills may be combined in one person).	Acquisition Route
Public finance	For example, "Country or state-specific public finance and accounting qualification, with N years of experience".	For example: - Recruit; - Train; - Identify internally (with name/s); - Seek community volunteer (e.g., with accounting qualification); - Hire externally (as a consultant); - Partner with another organization; - Request help from private employer; - etc.
Private finance and capital markets	"N years' experience in capital markets, or working with them on behalf of governments".	(As above)
Bond issuance (in the relevant jurisdiction)	"N years' experience of bond issuance by governments in this legal jurisdiction".	(As above)
Green bond experience	"N years' experience of green bonds and at least y successful bonds secured".	(As above)
Development banks and aid agencies	"N years' experience of applying to and working with development banks or other aid agencies".	(As above)
Grants applications	"Successful record of locating and applying for grants from foundations and other grant giving bodies".	(As above)
Private industry	"N years' experience of working in the private sector or successfully working with it while in government".	(As above)
Project design	Track record of designing DRR projects".	(As above)
Project appraisal and cost estimation	"N years' experience in assessing costs, benefits and investment potential of DRR and other community projects".	(As above)
Financial modeling	"Track record of modeling financial implications of project scenarios".	(As above)
Accounting	"Accounting qualification valid in this country/state and n years of experience with a specialization in project finance".	(As above)
Contract negotiation	"Experienced government contract negotiator".	(As above)
Program management	"N years' experience in managing complex public programs to schedule and budget".	(As above)
Other (describe)		(As above)
Additional comments		

3) Community Credit Status

It is important for a community to perform a self-assessment of its current borrowing status and conditions. Community characteristics and qualifications may reduce the pool of potential funding options and the community will want to avoid wasted time as well as the adverse publicity that may come from an application being rejected for credit reasons.

There are some general conditions that communities should consider, including the size and wealth of the community, and its fiscal health, including its bond rating (where this exists). Large communities have larger project needs and their larger staff knowledge base (if applicable) should be illustrated in the project description and details. Specific fund providers may favor specific areas of creditworthiness and communities should find out what these might be.

Having a track record of proposing, funding and completing successful sustainability and/or resiliency projects – even if small – will greatly enhance a community's standing for future funding. As such, communities should consider smaller projects which are successfully completed as good steppingstones for favorable funding options.

Ironically, given the subject, a community facing adverse environmental impacts, for example from sea level rise, may find that its credit rating is reduced, especially if there have already been disaster impacts.

If a community has a poor rating it may need to "shelter" behind an entity that has a better one - another tier of government perhaps, academia, an NGO or the private sector in combination with one or more of these. Alternatively, it may need to show that it has contracted with a more capable organization for project management as an action to manage project execution risk. Although it increases complexity, coordinating a resiliency project which encompasses several communities can leverage the credit status of a neighboring community and support the desired project. These examples of reducing the ultimate risk for a successful project should change the likely funding strategy.

Worksheet 4.3 will assist the community in assessing its current credit status. This work effort will provide a pathway to address specific areas of concern for potential funding partners. The blank template is available in **Appendix 4.1**.

Worksheet 4.3: Qualifying the Community's Credit Status	
<i>(Italic texts are examples)</i>	
Item	Examples to be included by your community
Formal credit or bond rating	• Provide formal credit and/or bond ratings for the community and name(s) of rating agency.
Existing capital program	• Set out existing capital commitments: ◦ (See also Worksheet 4.1); ◦ Set out total capital spend by year and estimated debt repayments by year for next 10 years; ◦ Set out % of revenue budget in current year required for debt repayment.
Tax base and cash reserves	• Demonstrate the strength of your revenue base: ◦ Set out recent history of tax revenue, tax rates and increases; ◦ Set out current size of tax base - numbers of payers, trends to increase or decrease; ◦ Set out cash reserves, and % of revenue budget they represent.
Past project performance	• Review success of capital projects (DRR and other) to date (see also Worksheet 4.1) to demonstrate your competence in this area: ◦ Project purpose – adaptive or mitigation; ◦ Summary of goals, and target performance levels, as well as areas/segments of the community affected; ◦ Schedule/completion% to date vs target dates/%; ◦ Actual spend to date vs targets; ◦ Project performance (if known) v targets. • Provide "case studies" of especially successful projects.
Procurement and project execution team	• Summarize Worksheet 4.2 to demonstrate strength and experience of your team, and thus your ability to deliver.
Partnerships	• Where using partners to build credibility and expertise, strengthen credit rating or to enable greater impacts: ◦ Identify those partners; ◦ Describe roles and responsibilities of each; ◦ Describe their track records and how they enhance your community's capabilities.
Known climate risk	• List past examples of environmental damage • Summarize risk projections and adaptations carried out
Additional comments	•

4) "Bankable" projects

A bankable project is one that one or more entities want to invest in because:

- If the entity is a government, NGO or foundation, the project fits with their mission and funding criteria as well as, and ideally better than, the other investment requests they have received; or
- If the entity is a for-profit (commercial or social enterprise), the project allows them to make a financial and/or other return in line with their funding criteria, at an acceptable risk; or
- If the entity is local, the project promotes well-being in the entity's community.

"Bankable" may therefore mean different things to different potential investors.

"Thinking like the investor(s)" that you want to approach will help you conceive bankable projects:

- *What is there about the project that fits with the potential funder's mission and funding criteria? How can these be emphasized?*
- *How might the return to the funder be enhanced - keeping in mind that the desired return may be some co-benefit or social impact, not just traditional profit.*
- *How can risk be reduced - project insurance perhaps, or how might you frame the project in a different way?*

Communities can also increase "bankability" by designing and developing resiliency projects which are clearly targeted, and "shovel ready" in the sense that they can be started rapidly. Shovel ready is defined as a project that has completed planning, designed, engineering, community outreach and inclusion, and financial reviews. These projects should have strong local support and be tactically ready for implementation.

The attributes that are considered for a bankable project include:

- **Vision** – Create a compelling narrative and picture of the problem to be solved and how the project will help, ideally, if the funder's rules allow it, using multiple forms of media. You will in effect be "marketing" this vision to potential funders. The analysis of the Scorecard assessment results is a great input for this project rationale.
- **Design** – The project's purpose and design should be supported by strong engineering and project planning documents. This reinforces to funders that the project can be built on time, on budget, and solve the stated problem.
- **Risk** – The project reduces a specific set of climate change threats to the community (as with value, above) and has clear risk mitigation actions identified that maximize the chances that investors will see the desired returns.
- **Value** – Demonstrate that the completed project will solve the stated problems(s) and provide quantitative and qualitative returns to the community. Ideally, the value of improved resilience will be monetized (stated in financial terms). The cost-benefit balance can if needed be compared with the costs, carbon and risk reduction benefits offered by other methods. Where monetization is not possible, the benefits should at least be quantified, so that they can be targeted. Qualitative benefits are not invalid, but will be stronger if they are also measurable, even if measurement is to be through, say, a "proxy" measure such as a survey of those affected.

Smaller communities may find it easier to create bankable projects by partnering with other communities in their area. This may make for larger projects which, though perhaps more costly, will enable a larger pool of benefits and thus be more attractive.

Worksheet 4.4 will help the community team in identifying the attributes which make a project bankable, and in exploring how to increase "bankability". The blank template is available in **Appendix 4.1**. Note that Chapter 2 of this Action Guide, on Creating a Prioritized Action Plan, also addresses this issue.

Worksheet 4.4: Creating a Bankable Project	
<i>(Italic texts are examples)</i>	
Item	Example of Community Response
Project Name	• <i>[Name of Project]</i>
General description	• <i>Project scope and objectives;</i> • <i>Succinct problem statement, including risks to be addressed;</i> • <i>General narrative describing what is envisaged and how it solves the problem;</i> • <i>Specific design considerations (for example, "resilience to 1 in 50 Year flood, or "maximizing use and protection of ecosystem services";</i> • <i>Community impact in general terms - benefits are covered below.</i>
Costs and benefits statement	• <i>Detailed cost breakdown by year:</i> ◦ <i>Capital costs by year;</i> ◦ <i>Operating expenses (if relevant to the funder);</i> ◦ <i>Costs borne by other projects, if any (inbound dividends - see later);</i> ◦ <i>List financial contingency funds, if any.</i> • <i>Detailed statement of direct DRR benefits:</i> ◦ <i>Stated in monetary terms as far as possible, but quantified if not monetized;</i> ◦ <i>Qualitative benefits also listed.</i> • <i>List non-DRR (outbound dividend - see later) co-benefits, in monetary terms if possible:</i> ◦ <i>Include environmental benefits, if any, for green bond funders and funders generally;</i> ◦ <i>Include community stability, amenity value, tax base protection, economic vitality and other gains as applicable.</i> • <i>Summarize the total cost/benefit case for the project, with Net Present Value (NPV) and Internal Rate of Return (IRR) as applicable.</i>
Partnership structure	• <i>Other organizations involved in the project, if any.</i> • <i>Their specific roles and commitments.</i>
Project organization and execution schedule	• <i>All project roles - project management structure, steering groups, reporting structure, and names, if known;</i> • <i>Resumes of key staff (see also worksheet 4.2);</i> • <i>Project schedule to the greatest level of detail available:</i> ◦ <i>Main phases;</i> ◦ <i>Tasks within phases, and resource estimates.</i> • <i>Match with funder's payment schedule, if known.</i>
Risk statement	• <i>Demonstrate that you have addressed risks that could delay the project or prevent intended benefits from happening. These might include:</i> ◦ <i>Technical complexity;</i> ◦ <i>Supply chain issues;</i> ◦ <i>Data availability;</i> ◦ <i>Community acceptance;</i> ◦ <i>Non availability of matching funds;</i> ◦ <i>Lack of skills;</i> ◦ <i>Political uncertainty;</i> ◦ <i>Economic conditions;</i> ◦ <i>Faster than expected climate change impacts.</i> • <i>Set out mitigation strategy/-ies that deal with each risk to the greatest extent possible.</i>
Project collateral	• <i>For major projects, consider making short movies, slideware, etc., as allowed by funder's rules and procurement process, to help "sell" the project.</i>
Additional comments	•

5) Resiliency Co-Benefits or "Dividends"

Resiliency co-benefits or "dividends" are benefits that the project will provide either qualitatively or quantitatively beyond the DRR impacts being directly targeted. There are two kinds of dividends:

- **"Outbound" dividends** are additional benefits that DRR-focused spending may also enable. For example, where an area is designated as a flood zone, it may also be designated as a public open space offering amenity value when it is not flooded; or where trees are planted to reduce urban heat island effects, they may also increase property values and filter air pollution. One specific kind of outbound dividend is where a resilience project has sustainability benefits that enable carbon credits to be claimed. These credits can then, in principle, be sold to offset project costs.
- **"Inbound" dividends** are resilience benefits that arise from projects that did not originally have a DRR purpose. For example, a mid-life update to an older office building may also make it more earthquake or flood-resilient; a new school gymnasium may also double as a hurricane shelter when needed; or a highway reconstruction program may offer a low-cost opportunity to install soak-aways and porous medians to allow better storm water management.

Outbound dividends tend to improve the business case for DRR spending, so making it more bankable, and may enable access to additional funding sources.

Inbound dividends may improve the business case for the non-DRR project, while also reducing the total impact on the community's DRR funds (because some of the spending is coming from non-DRR sources); they may also enable other pools of funding to be accessed that are not directly related to DRR.

As with any value statement, resiliency dividends will ideally be stated in monetary terms, so they can be calculated directly as the return on investment (ROI) for the project; and if that is not possible, they should at least be measurable. For example, a DRR project may have an "outbound" dividend of reduced community medical costs as the number of disasters is reduced, but there may also be important qualitative dividends for the community such as improved overall quality of life and happiness for the community. These may be difficult to state in fiscal (monetary) terms, but happiness can be surveyed, and it also increases community productivity, safety and security which themselves can be tracked and quantified.

Long term or **"backend loaded" dividends** will often be discounted as standard accounting practice (reflecting the declining time value of money) which means that they will not have the same assessed relative monetary impact as those occurring sooner. Working with local funding sources can increase dividends' monetary value. Local lenders understand in real time the short- and long-term value provided by the proposed resiliency project. Therefore, it is easier for them to apply real monetary value creation. This same fact holds for other local community members that have a vested interest – along with their families – in these long-term resiliency gains.

Overall, while dividends will rarely be the total answer to all DRR funding needs, they can make a significant difference by reducing DRR financing needs, improving bankability and enabling new sources of financing to be accessed.

Worksheets 4.5a and 4.5b will help you identify dividends. Worksheet 4.5a offers a general approach to the dividends issue; while worksheet 4.5b allows you to assess the dividends for specific projects. The blank templates are available in **Appendix 4.1**.

Worksheet 4.5a: "Inbound" Resilience "Dividends" <i>"Inbound" dividends arise where non-DRR projects deliver some DRR benefit.</i> <i>(Italic texts are examples)</i>			
Name of Project:	ABC highway widening project		
Primary Benefit Sought Describe the main benefits that the project is intended to deliver.	DRR Benefit Delivered Describe the DRR benefits that will be available.	Quantification Quantify the DRR benefits.	Monetization and valuation State the benefits in monetary terms, if possible.
"ABC project will deliver improved traffic capacity and flow, and elimination of several dangerous intersections."	"Flood Reduction: if the ABC highway median is landscaped, urban street runoff will be reduced in area xxx." "Flood reduction: ABC project provides a lower-cost opportunity to renew storm sewer under the road."	[Calculate gallons of water diverted per inch of rainfall and multiply by average annual rainfall in area xxx.]	[assess this as a % of storm water pumping costs (energy, pump maintenance) for the city.] [Calculate savings (direct costs, reduced disruption, etc.) from replacing sewer as part of ABC project rather than separately.] [Assess likely reduction in property damage in area xxx from improved drainage.]
	"Flood reduction: If urban street runoff is reduced in area xxx, it will reduce the size and costs of the planned storm water sewer upgrade - a smaller upgrade will now suffice."	[Assess additional DRR benefits that can now be provided elsewhere as a result of savings in area xxx.]	[Assess reduced capacity requirements and thus reduced capital and operating costs of meeting these.]
	"Emergency response: ABC project will improve hurricane evacuation capability in area xxx."	[Assess Improvement in volume of traffic that can be evacuated per hour.] [Assess reduction in personal injury and loss of life from easier evacuation.]	[Not monetized.]
Summary	[Summarize quantified and monetized benefits from inbound dividends and adjust funding case accordingly.]		
Comments			

Worksheet 4.6b: "Outbound" Resilience "Dividends"*"Outbound" dividends arise where DRR projects deliver some other, non-DRR benefit.**(Italic texts are examples)*

Name of Project:	ABC Public Housing Development - Seismic Retrofit			
DRR Benefits Delivered Describe the DRR benefits that will be offered.	Other Benefit Delivered Describe the other and non-DRR benefits that will be available.	Quantification Quantify the non-DRR benefits.	Monetization and valuation State the non-DRR benefits in monetary terms, if possible.	Additional Funding Sources that May Apply What other funders may be interested?
"ABC project will increase seismic safety - it will enable 150 city-owned apartments to withstand magnitude 7.0 earthquake in line with new seismic risk projections."	"ABC project will enable reduced upheaval for tenants and reduced cost if other programed items - building wiring & appliance updates, lead plumbing removal - are carried out at the same time."	[Calculate reduced days' loss of use of the apartments.] [Calculate reduced days' loss of use of the apartments]	[Show cost saving of reduced alternative accommodation for displaced residents.] [Show cost saving if rewiring and replumbing is done at the same time, vs separately.]	- Emergency housing funds. - Lead pipe removal grants. - City's own housing redevelopment funds.
	"ABC project will improve quality of life with better appliances, more reliable services and renewed decoration."	[Estimate reduced applications for rehousing from ABC apartments. Perhaps use survey to assess this.]	[Assess additional rental income stability/income from fewer applications to move.]	- Community development funds. - Tax-based funding to support increase in local income base.
	"ABC apartment landscaping will need to be renewed once work is complete - use opportunity to create soak away zones leading to flood risk reduction."	[Assess probable reduction in run-off flood reduction costs for lower elevation apartments.]	[Show cost of reduced flood rehabilitation and reduced emergency housing.]	- Water company's grants for storm water flow reduction. - Housing redevelopment funds.
	"ABC apartments will be more energy efficient when appliance upgrade and rewiring is completed."		[Estimate energy savings.] [Possibly, estimate GHG reductions, if emissions factor for local power sources is known.]	- Energy reduction tax breaks. - Possibly, carbon credits.
Summary	[Summarize quantified and monetized benefits from outbound dividends and: - Make sure these are included in DRR funding case; - Pursue additional funding sources as applicable.]			
Comments:				

4.3 Strategies

1. Look Local and Keep it Simple
2. Create a Financial Plan
3. Outreach for Funding Expertise
4. Community Partnering
5. Project Oversight
6. Prioritization by "Fundability"

Strategy 1) Look Local and Keep it Simple

Few communities have a pre-qualified list of potential funders or a complete financial "map" of funding sources early in the project cycle. Assemble this, beginning with the most local, simplest, and thus potentially the easiest, funding sources, saving the more complex "first of a kind" options for when easier, more local options may not be available:

- Research past local projects of the community and the funding sources that were secured for insights into specific funders and, as important, local funding expertise.
- Local government budget holders may not initially focus specifically on resilience but may fund projects that make their assets more resilient (for example, housing, economic development, transportation). Military agencies may also fall into this category.
- Local stakeholders such as water, energy or telecommunications companies may have access to their own funds for DRR that make their systems – and thus the city – more resilient. Larger companies that rely heavily on local infrastructure (especially transportation) may also be possible sources.
- Neighboring communities may partner with you to solve shared risk issues and problems, sharing the financial burden.
- Retaining an external fundraising consultant may provide significant value-added funding alternatives. This additional expenditure could ideally be provided pro bono by a local resource or potentially compensated with a small percentage of funds raised, rather than fee-paid.
- Most projects – especially those of significant capital expenditure – will achieve full funding by aggregating a collection of donations, grants and loans into a project portfolio.

Practical Application: Steps to Looking Local and Keeping it Simple

1. Staff your team with strong local expertise, preferably from past projects which brought successful resiliency solutions.
2. Consider also retaining a fundraising consultant with local experience.
3. Understand what has worked in the past and assess its potential for current purposes.
 - Contact other local governments and local businesses to understand past proposed solutions and completed projects they have accomplished.
 - If required, organize and facilitate workshop(s) with public and private sector stakeholders to capture lessons learned from local governments, civic leaders, and local businesses.
4. Research funding sources located in your area, and/or whose focus is predicated on your state or area.

- Assess the complexity of the funding process. As stated, bonds may be the simplest approach.
- 5. Create a "long list" of local and/or simpler funding sources.
- 6. [Create project]
- 7. Present project to each funding source, as per their process
- 8. Select a funding source from those willing to work with you.

Strategy 2) Create a Financial Plan

A community which has a well-constructed financial plan – linked to a clear overall resilience plan or blueprint – will greatly increase its chances of winning resiliency project funding. The structure and details of a financial plan can vary greatly based on the community's size, location, economic and financial standing, geopolitical situations, and other internal and external conditions. The author and owner of a financial plan is typically the Financial Director for the community.

For a project to be "bankable", the community itself usually needs to be bankable. A community's bankability is first confirmed by reviewing 3 to 5 years of past annual budgets and associated supporting documents paying particular attention to the following areas:

- Borrowers are greatly influenced by a community's past fiscal planning and performance against industry standard metrics, such as actual budget performance, capital budget and current long-term debt, and sources of revenue as a percent of the total dollar amount.
- The community should show how all community revenue sources are funded, whether from taxes, user fees, non-profits, grants from other areas of government or special assessments.
- They should identify the strength of their local tax bases, both in terms of growth or contraction in prior years and as projected for coming years, and levels of taxation relative to peer community's. Communities should provide a summary of their annual budget versus actual expenses. These will ideally illustrate the total amount the community budgeted and the annual expenditures. Descriptive but concise explanations for variances to budget plan are imperative in conveying fiscal understanding and control.
- The community's credit status, as discussed earlier, will be an important factor. Worksheet 4.4 provides assistance in developing this financial plan.

The community's revenue stream which will support the portion of debt not covered by other loans or grants, and evidence of the quality of management of that stream are critical factors for funding a resiliency project. Where shortcomings are evident, the community should detail how these will be addressed going forward. Resiliency projects – by their very nature – may require large capital dollar expenditures. Describing the sources, a community will utilize for repayment are central to fundability. Most attractive to project funders are income streams which are generated directly or indirectly from the resiliency project itself. User or service fees associated with project outputs or CO2 offset payments are examples of payment streams which may be beneficial. Qualitative value can also provide support, though funders often discount the dollar value of that support.

The last aspect of a financial plan which is important to project funders is what might compete for the funds to provide payment to the resiliency project. This is especially critical should the community rely on

general funds for repayment towards the resiliency project, where there can be many other obligations. The best and simplest method is to provide a list of capital debt which is currently obligated from the general fund. A historical review – the last 5-10 years showing the rate of income generation and the history of successful debt repayment, will further document the credit worthiness and fiscal dedication of a community. If it is separately identifiable, the specific resiliency project debt load should be included in this analysis to document the scale of its debt and repayment.

An important note. Many communities have experienced fiscal challenges due to COVID-19. A community should not hide nor minimize these past events from potential funders. Full disclosure with a clear understanding of the facts and reasons for the difficulties is critical in establishing trust and partnership with potential lending partners. Funders are fully experienced in fiscal challenges – this is the business they are in. Providing them with the full set of facts and an open discussion will allow them to fully manage your loan and assist in structuring the repayment to best fit your fiscal environment.

Practical Application: Steps to Creating a Financial Plan

1. Identify project(s) to be funded, Rough Order of Magnitude (ROM) costs and success metrics for each project (see Chapter 2 Prioritization chapter of this Action Guide).
2. Define fiscal and budgetary roles responsibilities and accountabilities for community officers and leaders, if not already defined (Worksheet 4.2).
3. Access required expertise (Worksheet 4.2, and also see Strategy 4), below).
4. Assess credit status (Worksheet 4.4): if none, develop applications for institutions based on recommendations of financial team.
5. Assess revenue (fiscal) conditions and create process for review and monitoring of these:
 - Assess revenue sources, current standing and outlook;
 - Document past performance in managing budgets and finances.
5. Document main budget headings, to show competition for community revenues:
 - Set out fixed expenditures (debt, wages, etc.) and the outlook for these;
 - Set out discretionary expenditures, and the outlook for these;
 - Set out existing capital program and the outlook for this;
 - Set out taxation rates relative to peer communities and state/national averages (and thus the ability to raise further taxes to pay back funders).
6. Identify potential sources of financial support for DRR projects and evaluate these:
 - Evaluate applicability of each category of funding (public finance, public equity, grants, private finance, and dividends – see above) to the project(s) in question;
 - Identify DRR fit with other policy areas, and document dividend possibilities (Worksheets 4.5a & 4.5b);
 - Identify possible sources in each category;
 - Assess and document fit with the source's funding criteria;
 - Assess funders' likely level of comfort with existing taxation and debt levels in the community and budgetary performance;
 - Assess conditions (not least, interest rates!) likely to be attached by funders;
 - Assess political acceptability in the community.

7. Document processes for community engagement, to eliminate this as a source of risk in the eyes of funders.
8. Document budget and project performance management review processes, to eliminate these as sources of risk in eyes of funders.
9. Identify other sources of technical risk and document mitigation strategies.
10. Capital asset management program:
 - o Describe current assets and investment strategies;
 - o Document how the community will maintain its physical infrastructure, and new additions from this project.
11. Assemble plan.

Strategy 3) Outreach for Funding Expertise

The process to secure funding sources for all types of community projects is complex. Communities which require loans or grants, especially disadvantaged communities, may require internal and external financial expertise yet not all communities will have ready access to such expertise nor the development budget to engage with it. Some alternatives (to hiring a consultant) are as follows:

- **Technical assistance** may be available from government agencies. These agencies generally focus on funding for specific types of projects such as infrastructure, transportation, housing, social services or public health. Others may be more broad-based, for example the *Thriving Communities Program* in the US that facilitates the planning and development of transportation and community revitalization activities and provides tools to ensure that under-resourced communities can access the historic funding provided in the Bipartisan Infrastructure Law (BIL)¹⁵.
- For mid- to large-population communities there may be quality **financial expertise** within the local community, for example within the local banking and investment community, or with local chapters of Chambers of Commerce and Rotary. Less known might be members of national associations of financial advisors (in the US, *the National Association of Insurance and Financial Advisors – NAIFA*¹⁶). These groups may have experience with investigating funding for their business or have assisted on past community improvement projects. Look for local chapters of environmental, social, resilience and sustainability networks or centers that provide free technical advice and capacity building tools and services.
- **Local experts** may also be employed with local banks and, to further their civic duty, might agree as private individuals to a volunteer role. It is important to note that as a volunteer they would not be accepting any fiduciary and contractual responsibility.
- **Local academic institutions** such as universities and community colleges may have some of the required skills.
- Another approach which is applicable for any size community but especially for smaller ones is to engage expertise through a **Peer-to-Peer mechanism** (for example, the Making Cities Resilient 2030 – MCR2030), which has a Resilience Hub program to encourage peer-to-peer learning, exchange and support¹⁷). Learning from other like communities that have successfully completed funding for a resilience and/or sustainability project is an excellent resource. There may be networks within the country (for example run by *the International Association of Emergency Managers – IAEM*), or within the US by FEMA. The listing of *World Bank Projects* – organized by project and country – can allow a community to research similar projects from a known project fund source¹⁸.

- Capacity building and technical support are also available from many development partners providing **Project Preparation Facilities (PPFs)** such as *the City Climate Finance Gap Fund*¹⁹ and *ICLEI – Local Governments for Sustainability and its Transformative Actions Program (TAP)*²⁰. PPFs are organizations, initiatives, or institutions that support cities in developing bankable, investment-ready projects typically from a project's concept, design, or scoping stage up to the financial closes. A list of PPFs can be found at the *Project Preparation Resource Directory* provided by the Cities Climate Finance Leadership Alliance (CCFLA)²¹.

Keep in mind that international and national funders can also provide this expertise, For example:

- *The IMF* provides relevant fiscal technical assistance through its Regional Capacity Development Centers around the globe. The Development Banks often provide technical assistance and fiscal capacity development. Several UN agencies and the World Bank offer various types of technical assistance relative to fiscal readiness and resilience funding.
- *The Cities Development Initiative for Asia (CDIA)*²² was established by the Asian Development Bank (ADB) and the government of Germany to assist secondary cities in Asia and the Pacific to prepare sustainable and bankable infrastructure projects, linking cities with funding resources, and support capacities to develop and implement high priority investments.
- *The Global Climate Adaptation Fund (GCA)* works towards accelerating adaptation action to support a more climate-resilient world. One of the ways in which GCA supports countries in their adaptation efforts is through its Technical Assistance Program (TAP)²³, a core implementation vehicle of the Africa Adaptation Acceleration Program (AAAP). The TAP addresses the major barriers that African countries face in accessing large-scale adaptation finance from major climate funds, such as:
 - Significant gaps in adaptation planning
 - Lack of decision-making based on a programmatic approach
 - Insufficient technical capacities for adaptation project development and implementation
 - A failure to capitalize on the ground-breaking direct access modality²⁴

Practical Application: Steps to Identifying and Meeting Needs for Financial Skills

To assist a community which does not have strong fiscal team members **Worksheet 4.2** will assist in identifying potential technical expertise either within their community or from outside. Implementation steps:

1. Designate a financial team leader with knowledge of the community and the proposed project(s).
2. Assess fiscal, project definition, project finance, accounting and capital markets skill set of financial teams. Develop list of skills needed.
3. Develop list of potential sources of these skills, within and outside the community.
4. If needed, create a request for proposal (RFP) for the required skills and issue it.
5. Interview, rank potential and select additional team members.
6. Revise financial team organization and decision making after additional team members join team.

Strategy 4) Community Partnering

Community partnering may create a "multiplier effect" – stronger local fund, information and skills bases that can attract a higher level of funding support. Coupled projects may thereby increase the size, scale, and complexity of possible DDR improvements, because coordinated resiliency projects may add greater project value, potentially at less lending risk.

Ideally communities will find partners by evaluating each other's master plans. Partnerships are well suited to resiliency projects which can provide, for example, a common solution to multiple jurisdictions such as the municipalities in a particular flood plain or faced with the same wildfire threat. In such cases, communities might share the work effort in applying collectively to State and Federal agencies or NGOs for funding, and their collaboration may amplify to those entities the impact that the funding may have.

Each partner in a partnership will have different goals and objectives. The challenge for the partnership is to blend the different paths into one roadmap which achieves the greatest common good and the greatest good for each stakeholder. The specific stages or sub-projects which are specified as way points on this roadmap will have a blend of each community's need but will generate greater common value. It is recommended that the partners create a partnership roadmap with a list of projects or stages, objectives, roles, responsibilities and completion dates.

In some cases, it may be possible to partner, either as one community or several, in approaching private sector organizations for funds, especially those whose businesses may be at the same risk as the community faces. Sometimes the private sector organization may be able to provide in kind support (people, data, equipment, facilities), which could reduce the financial cost of the project. You will probably need to stress to businesses that that you are not just asking for charity – they will gain from DRR investment by reducing risk to their premises, operations and revenue flows, faster post event recovery, greater workforce stability and so on.

On the downside partnering, by definition, adds additional stakeholders to a project and thus may increase the political complexity and governance requirements of the project. Larger partnerships may need to set up a separate organization, such as the *Mississippi River Cities and Towns Initiative (MRCTI)*²⁵ which manages the relationship and handles applications for funds – and enables the "multiplier effect" described above.

Practical Application: Building Partnerships

1. Evaluate the community's current strength in securing funding.
2. Identify where or how partners could improve funding prospects – more benefits, stronger skills base, better match with funding criteria, etc.
3. Identify potential partners.
4. For other communities – assess likely commonality of the communities' plans – who needs to achieve what and how would partnering help all communities?
5. For the private sector – identify value to them in partnering. If possible, test this informally with one or more businesses before formally requesting a partnership.
6. Initiate discussions for partnership.

7. Agree partnership roadmap – what will be achieved by when and who will contribute what?
8. Agree governance mechanism (including separate organization if needed), metrics and processes.
9. Conclude partnership agreement or a Memorandum of Understanding (MOU).
10. Pursue funding.

Strategy 5) Project Oversight

The providers of funds to the community need to be assured that the project will be implemented on time, to specification, and on budget. Communities should develop a comprehensive approach for the project management of all proposed resiliency projects. The approach should include:

- Summary of the role and objectives of the project (see Chapter 2 on Prioritization of the Action Guide);
- Project scope, schedule, benefits and costs;
- Management processes and roles for day-to-day design, procurement, and construction;
- Accounting and reporting for the cost and progress associated with the project;
- Oversight and the reporting of project status to community staff and elected officials, in line with the governance mechanism defined for the resilience program as a whole.
- Description of risks and mitigation strategies to be adopted;
- Processes for stakeholder engagement, environmental protection, cultural heritage protection (if applicable).

Specific funders may also have their own requirements and processes that must be followed, and communities should take care to identify these. For example, a refresher on its project oversight guidelines is included in the *World Bank Environmental and Social Framework*²⁶; and expectations of World Bank Borrowers are included in its *Beginner's Guide*²⁷.

Practical Application: Demonstrating Project Oversight to Funders

To assist a community in identifying potential project oversight and supporting technical expertise in their community. Implementation steps:

1. Define project scope, objectives, benefits, costs, and time schedule. All of this information and detail should be documented in writing and approved by the appropriate community and other agency or agencies.
2. Create or adopt a formal project oversight and management framework – structures, processes, metrics and reporting. This formal project oversight should have sufficient written document so funder reviewers can review and critique.
3. Incorporate specific requirements from potential funders, if any.
4. Identify execution skills needed and ensure these can be met, either internally or externally (e.g., from consultants). Include internal and external subject matter experts (SMEs) as well as project management skills.
5. Share with potential funders as applicable and consult with them on improvements that may be needed.

Strategy 6) Prioritize by Fundability

The process many communities follow in developing resiliency projects is to assign funding as a late-stage activity. We suggest a modification to this process, which is to prioritize projects by bankability or fundability from the start.

As the community develops its list of potential resiliency projects, prioritize the top ranked projects further based on the ability to secure funds (See Chapter 2 of the Action Guide, on Creating a Prioritized Action Plan). As set out earlier, there are many kinds of funding organization and most target the types of projects they will fund, with specific guidelines for selection. The details and substantiations for how the project is planned, designed, operated, and value-added benefits are measured also vary from funder to funder. By selecting the fund provider as soon as possible, the community is able to target its response to the specific application requirements of the funder.

We are *not* suggesting that communities develop low-priority DRR projects just because the money flows in that direction. Consider the case of two DRR projects of equal benefit and priority, but where one is easy to fund and one is harder. All other things being equal, the community will choose the first one to proceed with while perhaps working on the second one over a longer period of time. Considering ease of funding is one aspect of assessing the feasibility of a specific project, which is a recognized part of program construction.

In addition:

- There may be ways to adjust the scope of the project to make it more bankable while still meeting the DRR objective. For example, it may be possible to re-scope DRR-driven projects as environmental, transportation or housing projects, thereby enabling additional funding;
- Even if this is not possible, as a last resort, it may still be possible to materially improve the community's resilience with the projects that *can* readily be funded.

Practical Application: Prioritize by Fundability

To prioritize projects by fundability/bankability:

1. List desired/required DRR projects and assess likely funders' needs (see above).
2. Identify projects where bankability may be an issue.
3. Investigate ways to improve bankability (see above strategies - financial planning, adding financial expertise, partnering, improving project oversight).
4. If required, investigate the possibility of re-scoping and still meeting same objective.
5. Re-prioritize accordingly and proceed with the projects that can be funded.

4.4 Conclusion

As we noted, 70% of past UNDRR Scorecard users in our survey had NOT completed the resiliency projects they identified as important to their community due to a lack of funding. This chapter attempts to address this by providing a step-by-step approach to approaching the task, with particular attention paid to those areas which communities have tended to find hardest. Worksheets are provided to help you work through the approach.

We believe that with an organized team and the disciplined process detailed in this chapter, a greater percentage of communities can make progress in completing their disaster risk reduction projects. We wish you every success as you seek the finance to turn your vision of resilience into reality!

For further help and assistance, please contact:

- Ben Ryan Ph.D, Associate Professor, Belmont University, Tennessee, USA - ben.ryan@belmont.edu
- Peter Williams Ph.D, Chair, ARISE-US, California, USA - rpwilliams1958@gmail.com
- Sanjaya Bhatia, Head of Office for Northeast Asia (ONEA) and Global Education and Training Institute (GETI), UNDRR - bhatia1@un.org
- Mutarika (Mai) Pruksapong, Ph.D, Program Management Officer, Global Education and Training Institute (GETI), UNDRR - mutarika.pruksapong@un.org

Appendix 4.1 – Worksheets

- Worksheet 4.1: Funding Sources
- Worksheet 4.2: Community Team Funding Expertise
- Worksheet 4.3: Community Credit Status
- Worksheet 4.4: Creating a Bankable Project
- Worksheet 4.5A: Resilience Dividends
- Worksheet 4.5B: Resilience Dividends

Worksheet 4.1 – Possible Funding Sources

The recent survey of past UNDRR Scorecard users confirmed that many resiliency projects have not been completed due to a lack of funding. This worksheet will enable communities to start thinking about funding types they should be considering for their DRR program and for specific projects, and the suitability of each for their needs.

Worksheet 1: Possible Funding Sources		
Issue	Item	Community Response
Current baseline: Where are you starting from?	• Financial review team	•
	• Current fiscal plan and budget status	•
	• Current credit rating(s)	•
	• Current debt holders and types/sizes and maturity dates of loans	•
	• Review of current DRR projects	•
	• Summary review of total capital program (DRR and non-DRR)	•
If funding whole program: Review program	• Registry of future DRR projects	•
If funding single project: Project summary	• Summary of project to be funded and funding needs	•
Political preferences	• Types of funding most likely to be organizationally, politically and electorally favored	•
Possible sources	• "Long list" of funders	•
	• "Short list" of funders	•
Additional comments	•	

Worksheet 4.2 – Community Finance Team Expertise

This worksheet will help communities assess the strength of their finance teams and plan to fill in any gaps.

Worksheet 4.7: Community Finance Team Expertise		
Skill or Experience area	Skills and specific experience needed. (In all cases, it may require one or more people; in some cases, skills may be combined in one person).	Acquisition Route
Public finance	•	•
Private finance and capital markets	•	•
Bond issuance (in the relevant jurisdiction)	•	•
Green bond experience	•	•
Development banks and aid agencies	•	•
Grants applications	•	•
Private industry	•	•
Project design	•	•
Project appraisal and cost estimation	•	•
Financial modeling	•	•
Accounting	•	•
Contract negotiation	•	•
Program management	•	•
Other (describe)	•	•
Additional comments	•	

Worksheet 4.3 – Community Credit Status

Communities hoping to receive grants and high-quality loans will need to be certain of their credit status. This worksheet will help to identify areas of shortcomings before the community submits its resiliency project funding requests. You may want to use this worksheet to support your DRR program generally, or to support an application for funds for a specific project.

Worksheet 4.8: Qualifying the Community's Credit Status	
Item	Examples to be included by your community
Formal credit or bond rating	•
Existing capital program	•
Tax base and cash reserves	•
Past project performance	•
Procurement and project execution team	•
Partnerships	•
Known climate risk	•
Additional comments	•

Worksheet 4.4 – Creating a Bankable Project

This worksheet will help you shape the project to achieve the greatest chance of securing financing for it.

Worksheet 4.9: Creating a Bankable Project	
Item	Example of Community Response
Project Name	• [Name of Project]
General description	•
Costs and benefits statement	•
Partnership structure	•
Project organization and execution schedule	•
Risk statement	•
Project collateral	•
Additional comments	•

Worksheet 4.5a and 4.5b – Identifying Resilience Dividends

There are two kinds of dividends - "inbound" and "outbound":

- **"Inbound"** dividends are incidental DRR benefits from non-DRR projects. These can reduce the funding required to achieve a given level of resilience, and it is clearly important to know what these will be in advance of a funding request, as they can reduce the funding you may need.
- **"Outbound"** dividends are co-benefits from DRR projects that fall in non DRR areas. These may strengthen the DRR funding case and may also enable other non-DRR funding sources to be accessed. To ensure a resiliency project receives full credit for the total value it delivers, it is imperative that outbound dividends are fully explained in funding requests. The goal is to achieve the "1 + 1 = 3" effect: projects should strive to capture greater long term community value than the DRR dollar investment alone.

Worksheets 4.5a and 4.5b will help you identify inbound and outbound dividends for any given project. (They could also be applied at the level of an entire program, too). They push you to quantify the dividends in question and ideally to state these in monetary values.

Worksheet 4.10a: "Inbound" Resilience "Dividends"			
<i>"Inbound" dividends arise where non-DRR projects deliver some DRR benefit.</i>			
Name of Project:			
Primary Benefit Sought Describe the main benefits that the project is intended to deliver.	DRR Benefit Delivered Describe the DRR benefits that will be available.	Quantification Quantify the DRR benefits.	Monetization and valuation State the benefits in monetary terms, if possible.
•	•	•	•
	•	•	•
	•	•	•
Summary			
Comments			

Worksheet 4.11b: "Outbound" Resilience "Dividends" <i>"Outbound" dividends arise where DRR projects deliver some other, non-DRR benefit.</i>				
Name of Project:				
DRR Benefits Delivered Describe the DRR benefits that will be offered.	Other Benefit Delivered Describe the other and non-DRR benefits that will be available.	Quantification Quantify the non-DRR benefits.	Monetization and valuation State the non-DRR benefits in monetary terms, if possible.	Additional Funding Sources that May Apply What other funders may be interested?
•	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
Summary				
Comments:				

Appendix 4.2 – References

- ¹ Global Commission on Adaptation, 2019. Adapt now: A Global Call for Leadership on Climate Resilience. https://files.wri.org/s3fs-public/uploads/GlobalCommission_Report_FINAL.pdf
- ² World Bank Umbrella 2.0. <https://www.worldbank.org/en/trust-funds-and-programs/home>
- ³ Disaster Resilience Scorecard for Cities. <https://mcr2030.undrr.org/disaster-resilience-scorecard-cities>
- ⁴ Green Bond Background – Investopedia. <https://www.investopedia.com/terms/g/green-bond.asp#:~:text=A%20green%20bond%20is%20a,issuers'%20other%20debt%20obligations.%E2%80%8B>
- ⁵ <https://www.climatebonds.net/2021/01/record-2695bn-green-issuance-2020-late-surge-sees-pandemic-year-pip-2019-total-3bn>
- ⁶ World Bank Green Bond Process Implementation Guidelines. <https://thedocs.worldbank.org/en/doc/2173015251167079640340022018/original/GreenBondImplementationGuidelines.pdf> and <https://thedocs.worldbank.org/en/doc/43b360bfda1e6e5b8a094ef2ce4dff2a-0340012021/original/World-Bank-IBRD-Sustainable-Development-Bond-Framework.pdf>
- ⁷ Climate Bonds Initiative. The Climate Bonds Standard and Certification Scheme - <https://www.climatebonds.net/standard/the-standard>
- ⁸ Climate Bonds Initiative. Foundational Courses on Green Bonds - <https://www.climatebonds.net/training/courses/fundamental>
- ⁹ ICMA Green Bond Principles. <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp-and> <https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles-June-2022-060623.pdf>
- ¹⁰ Carbon Initiative for Development. <https://www.ci-dev.org/>
- ¹¹ Forest Carbon Partnership Facility. <https://www.forestcarbonpartnership.org/>
- ¹² IMF – Proposal To Establish a Resilience and Sustainability Trust. <https://www.imf.org/en/Publications/Policy-Papers/Issues/2022/04/15/Proposal-To-Establish-A-Resilience-and-Sustainability-Trust-516692>
- ¹³ UNC – Generating Carbon Credits from Wetlands. <https://efc.web.unc.edu/2013/01/22/generating-carbon-credits-from-wetlands/>
- ¹⁴ CCFLA – Project Preparation Action Group. <https://citiesclimatefinance.org/action-groups/project-preparation/>
- ¹⁵ U.S. Department of Transportation – Thriving Communities Program. <https://www.transportation.gov/grants/thriving-communities>
- ¹⁶ National Association of Insurance and Financial Advisors. <https://belong.naifa.org/>
- ¹⁷ Making Cities Resilient 2030 (MCR2030). <http://mcr2030.undrr.org/> and MCR2030 Resilience Hub: <https://mcr2030.undrr.org/resilience-hub>
- ¹⁸ World Bank – Projects & Operations. <https://projects.worldbank.org/en/projects-operations/projects-home>
- ¹⁹ City Climate Finance Gap Fund. <https://www.citygapfund.org/>
- ²⁰ ICLEI – Local Governments for Sustainability and its Transformative Actions Program (TAP). <https://iclei.org/tap/>
- ²¹ CCFLA – Project Preparation Resource Directory. <https://citiesclimatefinance.org/project-preparation-resource-directory/>
- ²² Cities Development Initiative for Asia. <https://cdia.asia/>
- ²³ GCA – Technical Assistance Program: <https://gca.org/programs/aaap/>
- ²⁴ GCA – Unlocking Finance for Climate Change Adaptation: GCA's Technical Assistance Program. <https://gca.org/unlocking-finance-for-climate-change-adaptation-gcas-technical-assistance-program/>
- ²⁵ Mississippi River Cities and Towns Initiative. <https://www.mrcti.org>
- ²⁶ World Bank – Environmental and Social Framework. <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework>
- ²⁷ World Bank – A Beginner's Guide for Borrowers: Procurement under World Bank Investment Project Financing. <https://thedocs.worldbank.org/en/doc/684421525277630551-0290022018/original/BeginnersGuidetoIPFPProcurementforborrowers.pdf>

Additional References

- *Triple Dividend* - This working paper analyzes the full benefits of climate change adaptation investments, divided into three types of dividends. It shows that the benefits that accrue even when the anticipated disaster does not occur are often larger than the “avoided losses” that accrue when disaster does strike. This is important since it shows that the benefits of adaptation investments are often larger than assumed, and don’t always rely on the probabilities of disaster risk. <https://www.preventionweb.net/publication/triple-dividend-building-climate-resilience-taking-stock-moving-forward> (other papers available here as well)
- *Regilency Organization Funding List* – Regilency is a European organization comprises of 9 core partners, led by the Institute for European Energy and Climate Policy (IEECP). This link provides a list of potential funders communities may desire to contact. List: <https://regilence.eu/funding-opportunities/>
- *IMF*. The IMF provides technical assistance and training – known as capacity development as one of its core functions. Capacity development accounts for around a third of the IMF’s annual spending. It is available to all members upon their request and is tailored to a country’s specific needs. This is a link to the resources offered by the IMF. <https://www.imf.org/en/About/Factsheets/imf-capacity-development>
- *U.S. Climate Resilience*. If you are looking assistance to compile a Climate Vulnerability Assessment or Adaptation Plan, this link provides access to a catalog of more than 500 digital tools can help you take steps to build resilience, from engaging a community to developing a climate action plan. This link shows you one of the useful tools available: <https://toolkit.climate.gov/#tools> and <https://toolkit.climate.gov/topics/tribal-nations/capacity-building>
- *Funding and Technical Assistance for Climate Resilience and Adaptation*. Communities use a variety of sources to fund capital projects, pay for operations and maintenance costs and sustain programs. The same is true for communities locating funding for investments in climate resilience and adaptation. No single source of funding can pay for all climate resilience investments across the nation. Indiana University has developed this organization to assist. The link: <https://eri.iu.edu/erit/funding/index.html>

This page intentionally left blank.

