

Funding and Financing Equitable Resilience Projects

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To explore federal funding opportunities for resilience visit the [Climate Resilience and Adaptation Toolbox - Funding Program Overviews | US EPA](#).

Funding and Finance for ERB Projects

You've finished your ERB workshop and are excited to get started on next steps after having identified and evaluated actions for your community to take, as well as ways to keep stakeholders involved in the actions. However now you're faced with a problem that local government practitioners across the world continue to face each day: how do you pay for the actions that your community has come up with? This funding and finance resource aims to explain the basics of funding and finance for equitable resilience, and highlight three key practices for successfully funding and financing ERB projects.

Who is this reference resource for?

This guide is for use by ERB participants: local government leaders and their community partners to implement actions identified through the ERB process

How does this guide relate to ERB?

This guide details resilience project funding and finance opportunities that can help inform your planning for equitable climate adaptation, disaster resilience, and hazard mitigation:

1. Knowing how funding and finance flows through local government is key to harnessing public and private money for equitable resilience. This guide starts with a brief overview of funding and financing, including where money comes from and goes to in a local government.
2. Building and enhancing equity likely requires a shift in funding and finance flows from local government and other coffers. After a brief overview, this guide describes three tactics for attracting funds that can be used in equitable ways:
 - a. Using Alternative Cost Benefit Analysis,
 - b. Creating "Bankability" and Utilizing Blended Finance
 - c. Highlight ERB Aspects to Attract Federal Funds

What is the overarching reason why more funds should flow to equitable resilience?

Climate change and disasters affect some groups more than others because of historic social and environmental inequalities, and disaster recovery dollars have in the past perpetuated these inequalities¹. Therefore:

¹ "Investments do not produce resilient systems if they bolster the well-being of one community while further exposing groups already at risk disproportionately to climate impacts. Widespread discrimination, promoted by histories of colonialism, white supremacy, domination of nature, and economic exploitation have created systems that inhibit otherwise capable communities from thriving. Climate change exacerbates these inequities and those who are the least responsible for climate change are often the most impacted. Wealth often generates more wealth. Reactive disaster management funds often repay communities for the wealth they possessed, perpetuating socioeconomic disparities. Lower-to-middle-income and Black, Indigenous, and People of Color (BIPOC)

- Targeting funds to equitable resilience actions identified in your plans can help prevent further cascading negative impacts.
- Targeting funds to equitable resilience actions will help to make it more likely that those who need the funds the most will stand to benefit from such funding.
- Targeting funds to equitable resilience reduces burdens on communities hit ‘first and worst’ by climate impacts and other hazards.

TIP: Think for a minute about the historical inequitable distribution of resources in your city. Who is aware of this inequity? Is it being rectified now? Hopefully the ERB-related plan you created addresses these (but if not, this is a good moment to think about these considerations).

REMEMBER: ERB includes many activities that support equitable resilience funding

Local governments must support the creation of vibrant, equitable, and resilient communities. In your ERB workshop process, you may have discussed or come up with solutions for policy or new regulations, changed collaboration processes, and created new approaches to financial analysis that will help create such communities. This includes, but is not limited to, the following instances:

- *The networks considered in the Equitable Community Networks and Engagement section of the ERB process may point out partners that can contribute to funding applications.*
- *The review and assessment of indicators related to equitable resilience through the ERB process might help reveal the efficacy of current policy and programming.*
- *The creation of visions and actions that combine specific areas of concern with community-based actions may lead to new ideas for community led projects.*

TIP: After reading through this document, take some time to think through the activities that you participated in during your ERB process and see how they might contribute to some of the funding and financing practices described below.

Local Government Funding & Finance 101

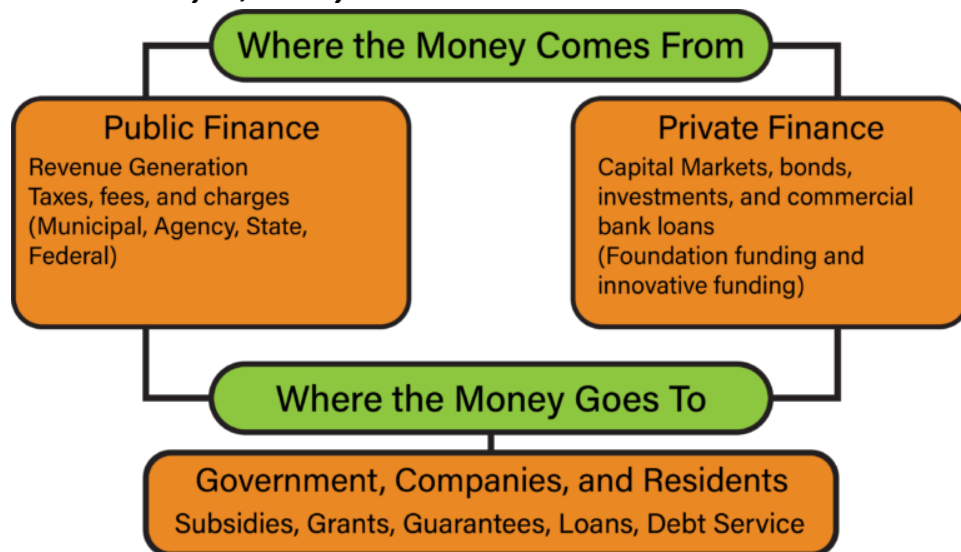
Local government is part of a financial system with public and private monies flowing in to support government projects. Generally, in the context of local government financial dealings, funding is understood to mean money that does not need to be repaid, like a grant, while finance is understood to mean money that must be repaid, like a loan or debt service on a municipal bond.

Both public funding and private finance are necessary for local governments to meet their climate resilience needs. Public funds come from revenue generation, including from municipal,

communities often residing at the front lines of climate change are often viewed as lesser priorities for climate resilience investment.” - <https://adaptationprofessionals.org/ready-to-fund-resilience-toolkit/>

agency, state, and federal government taxes, fees, and charges. Private finance comes from the capital markets, including investments in bonds, bank loans, and even direct equity investments. Philanthropic funding – often to a community organization rather than the city – is also part of private financing. Local governments use these public and private funds for payments, subsidies, grants, guarantees, and loans.

Local Government Money-In, Money-Out



Public funds come from revenue generation taxes, fees, and charges. Private funds come from the capital markets, including investments in bonds, bank loans, and equity. Local governments use these public and private funds to pay for projects and services via subsidies, grants, guarantees, and loans. (Climate Resilience Consulting 2021)

Most local governments rely on bonds to finance their infrastructure investments. Municipal bonds are either **general obligation bonds**, meaning they are serviced (paid back) by general taxes such as property taxes, or **revenue bonds**, meaning they are serviced by a specific tax or fee.

Finance and accounting professionals in local government are fundamental to the success of resilience finance. This is because they lead local interactions with credit rating agencies and co-create annual economic planning documents. One example is the capital improvement plan (CIP) or capital investment plan, a planning and fiscal management tool used to coordinate the location, timing, and financing of capital improvements (such as road and drainage projects) over a multi-year period.

TIP: If no one from the finance sector – City budget directors, community development finance leaders, philanthropy – was at your ERB workshop, make a plan to meet with them

and tell them about the ERB and your planning process. Ask what they need from you to increase equitable resilience.

TIP: Whether you are a City employee or a community leader, track down your City's capital improvement budget and look for projects that are helping to maintain and increase resilience. Could these projects be made more equitable?

Key Practice: Using Alternative Cost Benefit Analysis

Making the business case for ERB-related projects – a different approach to analyzing costs and benefits

Projects that emerge from ERB plans may need to take an innovative approach to project accounting practices in order to make a strong business case. These plans must communicate the additional equitable and resilient benefits they bring to communities in the language that drives financial decision-making: dollar value.

Using alternative cost-benefit analysis (CBA) techniques can better equip us to demonstrate that the cost of doing nothing is more expensive than paying for climate adaptation and that doing nothing has a disproportionate impact on some portion of our communities.

Recently, FEMA incorporated ecosystem benefits into its [CBA tool](#). It is a critical first step toward legitimizing nature-based climate solutions. Further methodologies for calculating CBA can be found in [FEMA's alternative cost-effective methodology](#) and in [EPA's green infrastructure cost-benefit resources](#).

Many strategies exist to shift how cost-benefit analysis is approached. These strategies help local governments consider and change:

- What is being valued.
- Who benefits and who bears the costs.
- Over what time period impacts are taken into account.

Value “collateral benefits”.

Providing value for environmental and social benefits in addition to traditional financial benefits is sometimes known as a triple-bottom line (TBL or 3BL) business case. For instance, green infrastructure projects such as parks, preserving wetlands or urban trees might have many benefits other than mitigating flood damage and costs. Wetlands and trees also work to maintain water quality in local water bodies, improve air quality, or cool urban heat islands. In the long-term, such green spaces may improve public health and improve property values,² which may further lead to increased tourism and property tax revenue. Accounting for a TBL

² <https://toolkit.climate.gov/reports/how-state-governments-can-help-communities-invest-climate-resilience>

business case can help track the benefits provided by a project in a more holistic and equitable way.

Put a dollar value on social and environmental costs and benefits.

In the above example, there are social and environmental benefits that the project creates. While it may be difficult to find a direct market value for some benefits or costs – such as the value of social connectivity, costs of trauma, or loss of community cohesion caused by a hurricane or wildfire – it will be easier to win support and showcase the full business value of projects by doing this work of placing dollar values. In fact, some are already looking at [various methods to measure \(non-market\) value](#) or [monetize environmental services](#).

TIP: Seek partnership with local think tanks, groups, and academic institutions to put a value on community co-benefits from resilience investment (as well as the hidden costs of inaction). [Contingent valuation](#) and [value transfer](#) are two options you might ask them to investigate with you.

Assume benefits will grow with equitable resilience investments.

In traditional cost benefit analysis, a discount rate is applied so that the benefits of a project decrease over time. This might indicate, for instance, a road or water pipe deteriorating with use. However, ERB-related projects may be designed to create social and environmental benefits that increase with time. For example, under-resourced neighborhoods often have less green space than other neighborhoods and, in some cases, planting more trees in these neighborhoods can provide benefits that grow over time. Trees not only capture stormwater, provide shade/energy saving benefits, and improve aesthetics and property values, but also grow larger, which increases each of these benefits over time. With thoughtful CBA standards and incentives in place, priorities can shift towards different rates and greater value in the long-term.

Consider this: Equity and the Traditional CBA

In addition to the consideration of discount rates that decrease long-term benefits, traditional CBA also heavily favors more valuable assets. At first glance, this valuation might seem natural and not in need of change as higher-priced assets, parcels, systems, etc. are worth more than lower-priced assets. However, due to historical under-representation and less access to public resources or services, many BIPOC communities as well as lower- and middle-income (LMI) communities often have greater rates of lower-priced assets than other communities. This means that traditional CBA might make projects in BIPOC or LMI communities seem less valuable and viable – and thus less [likely to be funded](#) and [protected against disasters](#) – than projects proposed for some majority-white communities or higher-income communities. Instead of reinforcing this dangerous loop of risk exposure for historically under-served communities, consider [ways to](#)

[intentionally center equity in funding](#) and ensure that under-served communities act as co-developers and beneficiaries of resilience projects.

TIPs to try:

Short Term

- Partner with local academic institutions and economic firms to bring more holistic social and environmental project outcomes to the center of the cost-benefit analysis.
- Identify and engage project beneficiaries (and, alternatively, those who would be harmed and/or deprioritized) to bring qualitative and quantitative community data into investment considerations.

Longer Term

- Work with the local government CFO and other local academic or investment institutions to incorporate innovative discounting practices to accommodate the long-term benefits of project co-benefits
- Raise the need for more clearly defined definitions and standards for what qualifies as a benefit, who is considered a project beneficiary, and to what degree it can support the transparent assignment of obligations of payment. If possible, partner to do so.

Ongoing

- Show leaders how internalizing community co-benefits into a project and including the longer-term time horizon over which they can accrue can shift the project cost-benefit ratio. Doing so can help highlight the gap between what is valued by a community versus what gets funded.
- Continue a dialogue that raises questions about what we value and who decides what we value.

Key Practice: Cover Costs by Increasing Bankability and Utilizing Blended Finance Methods

Seeking a variety of funding and finance types to cover all stages of project life.

When a project has revenue associated with it, it is considered “bankable.” This means that investors – such as bond holders – may be interested in providing further capital to the project. For local governments, revenue is often taxes or fees. In order to gather further capital, you might examine if your ERB project can be connected to a tax- or fee- funded project, like a transportation, water supply, or public building improvement.

Bankable ERB projects have the option of combining funding and finance from a variety of sources, a strategy referred to as 'blended finance,' to cover all stages of resilience building from community co-development and project design to execution and longer-term monitoring and

performance measurement. Several tactics can help projects raise more revenue through this blended finance method:

Stack a variety of funding and finance sources.

Different funders may be more compatible with differing project stages or components of resilience funding and finance. Search for philanthropy and state and federal fund requirements and use them as the basis for modifying resilience projects to suit funder criteria while identifying what funding source might prove the best fit for a specific project or component of a project. For instance, philanthropies may be best aligned to cover community outreach campaigns, while energy retrofits can be financed by utilities, aided by local energy rebates.

Incorporate innovative funding mechanisms to raise revenue.

Local governments can employ various ways of raising revenue for climate resilience-building tailored to their political situations, fiscal conditions, and legal barriers. These methods include the use of social impact bonds, parametric insurance, and loans from community development finance institutions:

- Some governments raise climate resilience funds by bonding against future tax or fee revenue through long-term borrowing of private capital.
- Other governments may support insurance solutions to preserve natural resources through a [parametric mechanism](#) which relies on a claim payment release that is triggered by certain weather conditions.
- Governments may contract loans from local community development finance institutions, banks, and cooperative societies to raise revenue. Debt financing measures often entail lending money on the promise of future payment with a return generated from taxes or fees.
- Tapping money generated by carbon pricing is an option for places with a carbon market.
- Other revenue-raising methods under consideration in various states include surcharges on property insurance.

Community Development Financial Institutions (CDFIs)

Are you a community leader looking to advance ERB projects? Check out Community Development Financial Institutions (CDFIs). CDFIs are development banks, credit unions, or loan funds that work to strengthen communities by expanding access to capital. They can offer smaller and less burdensome loans to communities that cannot access larger funding opportunities. CDFIs have access to a variety of financing tools including grants, donations, and loans.

[Thousands of CDFIs](#) already exist across the US. Track down the CDFI in your region and meet with them. Talk about equitable resilience and the projects in your plan. Ask them for suggestions on how to get your plans financed. It's good to involve your CDFI at the earliest stages of your project so they can help you think about what you need to consider during planning to get financed throughout the project.

Work with partners on strategies that cover the types and timing of funding or finance to pursue.

Engaging the right people is essential for stacking diverse climate resilience funding and finance sources effectively. For example:

- Engage key municipal professionals (such as finance and legal staff), and banks, investment firms, and other organizations and discuss opportunities to pilot innovative financing mechanisms or to leverage existing mechanisms to fill gaps in resilience funding and finance.
- Reach out to local and regional partners and state agencies to identify the grant opportunities available for resilience. Besides federal grants, identify potential grant opportunities from state agencies, utilities, philanthropies, and other impact investment organizations.
- Interview field experts and engage your Chief Financial Officer to better understand sources of capital, especially available debt service capacity. Consider the mechanisms for money flow and how local government will be affected.
- Seek internal champions to engage the local government finance department and pitch the value of resilience funding and finance.

The Atlanta BeltLine

The [Atlanta BeltLine](#) is a multi-use trail and greenway that has transformed a former railway corridor into a vibrant public space in Atlanta, GA, with a commitment to equity and inclusion. In addition to providing recreational and transportation benefits, the project has also generated revenue through public-private partnerships that support the development of mixed-use real estate projects along the trail. These projects include affordable housing, retail, and office space, which have helped to finance the ongoing maintenance and expansion of the trail.

TIPs to try:

Short Term

- **Work with local government finance leaders to consider strategies for revenue generation that could be related to projects derived from your ERB plan.**

- Pursue multi-function projects that have at least one source of revenue generation and that qualify for a range of funding sources.

Longer Term

- Investigate if innovative funding mechanisms such as social impact bonds³, and loans from community development finance institutions could fund a project derived from your ERB plan.
- Stack a variety of funding and finance sources to fulfill funding needs for all stages of a project derived from your ERB plan.

Ongoing

- Consider what private, state, and local revenue sources can serve as a match for federal grants.

Federal financial support for resilience

EPA's [Climate Resilience and Adaptation Funding Toolbox \(CRAFT\)](#) was created to support technical assistance providers working with states, Tribes, communities, nongovernmental organizations, academia, businesses and others looking to make sure their investments are resilient to climate-related impacts. The materials contained in CRAFT can help potential funding applicants learn about and secure financial support for climate-smart investments, particularly communities that are just getting started and have historically been unable to access federal dollars. To explore federal opportunities visit [Funding Program Overviews | US EPA](#).

Key Practice: Highlight ERB Aspects to Attract Federal Funds

Making the most of Justice40 Initiative to make the case for your ERB project to be funded.

In January 2021, [Executive Order 14008](#) created the [Justice40 Initiative](#), which aims to provide 40% of the overall benefit of certain federal investments in seven key areas to disadvantaged communities. These seven key areas are:

- climate change,
- clean energy and energy efficiency,

³ "Social Impact Bonds: Pay-for-success approach that transfers risk. Performance-based contract that is privately financed. Financiers are paid back by a public entity if pre-established metrics are met." -

<https://adaptationprofessionals.org/ready-to-fund-resilience-toolkit/>

- clean transit,
- affordable and sustainable housing,
- training and workforce development,
- the remediation and reduction of legacy pollution, and
- the development of critical clean water infrastructure.

Existing and new programs created by the [American Rescue Plan](#), [Bipartisan Infrastructure Law](#) (BIL), and [Inflation Reduction Act](#) (IRA) that make investments in any of these key areas can also be considered Justice40 covered programs.⁴

Federal agencies have been [instructed to use](#) the Council on Environmental Quality's new [Climate and Economic Justice Screening Tool](#) (CEJST) to identify geographically defined disadvantaged communities.

CEJST is a mapping tool that shows information about the [environmental, climate, and socioeconomic burdens](#) that communities experience. It uses a combination of datasets to identify indicators of burdens for each census tract and ranks most of the burdens using percentiles comparing census tracts to each other.

A community is considered to be disadvantaged if they are on land within the boundaries of Federally Recognized Tribes or if they are located within a census tract that meets the threshold for one or more [environmental, climate, or other burdens](#) and also meets the threshold for an associated socioeconomic burden.⁵

TIP: Use the CEJST to look up background data for your community. The snapshot of information provided may help with funding and finance applications, especially those with federal connections. While there are other good tools available, be sure to explicitly use data from CEJST when federal applications require background information about your community.

Most importantly, ERB and its activities give your communities an advantage in being considered for funding under the Justice40 covered programs. All Justice40 covered programs are required to engage in stakeholder consultation and ensure that community stakeholders are meaningfully involved in determining program benefits. Covered programs are also required to report data on the benefits directed to disadvantaged communities.⁶ Both community engagement and benefit tracking are key elements of ERB projects.

⁴ <https://www.whitehouse.gov/environmentaljustice/justice40/>

⁵ <https://screeningtool.geoplatform.gov/en/methodology>

⁶ <https://www.whitehouse.gov/environmentaljustice/justice40/>

TIP: Find out who in your community, region, or state is tracking federal funding, and collaborate with your state government to generate competitive applications for funds. Meet with them to discuss the above opportunities, bringing ideas from the ERB-derived plan to the conversation. Make a pitch to prioritize ERB projects for these funding grants, which will come through competitive grants directly from the federal government as well as allocations for states to distribute. ERB projects often have the added benefit of meeting many of the Justice40 goals.

REMEMBER: *Local government action is key to ensuring more equitable funding and finance flows*

Intentionality is critical! Centering equity in decision making requires intentional decision making between and within departments and agencies. The ERB suggests adhering to the following equity principles while planning for resilience:

- *Center community-derived visions at the core of adaptation plans*
 - *Advance a culture of democratic engagement through community-driven planning*
 - *Engage all members of the community, including youth, older adults, differently-abled people, LGBTQ+, low-income people, etc.*
- *Assess local/community vulnerabilities and assets*
 - *Include equity and resilience indicators as well as both infrastructure-related indicators and human impacts*
 - *Include racial justice, gender justice, economic justice, etc. analyses that address systemic issues that contribute to disproportionate climate impacts*
- *Further budget transparency and include community-based financing*
 - *Adopt grant and loan guidelines requirements to engage lower-resourced neighborhoods in resilience project decision-making*
 - *Establish guidelines to determine grant recipients based on risk data*
- *Put forth comprehensive solutions that address the root causes of climate vulnerability*
 - *Provide place-based adaptation solutions*
 - *Include aspirational goals that will result in true resilience (for example, housing security for all, food security for all, energy security for all, water security for all, etc.)*
 - *Prevent housing displacement; local governments can anticipate and mitigate lower resourced community displacement pressures*
- *Plan for capabilities for conducting just recovery in the case of a disaster*

Examples of municipal financial mechanisms that can be used for equitable climate resilience:

- General obligations bonds that combine investment in affordable housing with flood mitigation (see the [Miami Forever Bond](#) as an example)

- Stormwater retention credit trading schemes that create credits via a regulator for sellers, inspiring distribution of green infrastructure assets outside of the city center (see [D.C. using funds from its stormwater credit scheme](#) to fund green infrastructure in the Anacostia neighborhood as an example)
- Environmental and social impact bonds with quantifiable environmental and social measures that the bond issuer aims to meet with their project and an evaluator verifies (see Atlanta's [\\$14 million environmental impact bond](#) as an example).
- Community land trusts to protect community resources for environmental and community benefit and inspire community-based ownership and control of land (see Chicago's [NeighborSpace](#) acquiring vacant parcels for community 'activation' and green space development as an example)