



REQUEST FOR PROPOSAL (RfP)

Community-based Flood Early Warning System of Acari River
Watershed in Rio de Janeiro

C40 Cities Climate Leadership Group, Inc.
120 Park Avenue, 23rd Floor
New York, NY 10017
United States of America

January 2025

Deadline for submission:
10th February 2025

1. C40 Cities Climate Leadership Group Inc. ("C40")

C40 is a network of nearly 100 mayors of the world's leading cities, who are working to deliver the urgent action needed right now to confront the climate crisis, and create a future where everyone, everywhere can thrive. Mayors of C40 cities are committed to using a science-based and people-focused approach to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities. Through a Global Green New Deal, mayors are working alongside a broad coalition of representatives from labour, business, the youth climate movement and civil society to go further and faster than ever before.

The strategic direction of the organisation is determined by an elected Steering Committee of C40 mayors which is co-chaired by Mayor Sadiq Khan of London, United Kingdom, and Mayor Yvonne Aki-Sawyerr of Freetown, Sierra Leone. Three term Mayor of New York City Michael R. Bloomberg serves as President of the C40 Board of Directors, which is responsible for operational oversight. A nine-person management team, led by Executive Director, Mark Watts, leads the day-to-day management of C40. C40's three core strategic funders are Bloomberg Philanthropies, the Children's Investment Fund Foundation (CIFF) and Realdania.

To learn more about the work of C40 and our cities, please visit our [Website](#), or follow us on [Twitter](#), [Instagram](#), [Facebook](#) and [LinkedIn](#).

2. Summary, Purpose and Background of the Project

Cities face rapid urbanization and the development of water management infrastructure is falling behind urban growth. Vulnerable populations and informal settlements are particularly vulnerable to water risks. Cities therefore need to increase their water resilience by taking ambitious actions such as early warning systems and emergency protocols to protect vulnerable communities' lives, recycled water use, sustainable groundwater usage, reduce potable water usage, development of a SuDS-forward drainage master plan, restoration of water bodies, expansion of flood control and river storage capacity, guidance for building code revisions towards flood resilience, among others.

The C40 Inclusive Water Resilience Accelerator Fund is C40's response to the unmet needs of cities as they navigate the challenges of urban water management in the context of a climate crisis.

The fund is intended to support local governments to increase resilience to climate-induced water stress and excess by delivering actions that are just, fair, inclusive and benefit all residents, especially frontline communities. It aims to

support activities, plans, policies, and projects oriented to help cities in achieving water-related targets and reducing inequity in providing access to water and the unbalanced exposure to water-related hazards to low-income populations.

General Information about the project:

The Acari and São João de Meriti river basin is part of the Guanabara Bay watershed, located in the northern zone of Rio de Janeiro. Covering an area of 107 km², it intersects 37 densely urbanized neighbourhoods of the city.

The Master Plan of Stormwater Management in Rio de Janeiro proposes the construction of 22 reservoirs within the Acari river basin, along with linear structural interventions. Due to the dense urbanization of the area, these interventions are expected to have significant social impacts and require substantial financial resources.

On January 14, 2024, the area covered by the warning system experienced severe flooding, with water depths reaching up to 2.50 meters. This resulted in extensive contents and building damage and posed a significant risk of drowning.

In this context, the municipality intends to carry out canalization works along specific sections of the Acari River, as indicated in the preliminary area shown in Figure 1. While funding for the project is secured, its implementation will take time. To address immediate needs, the municipality plans to develop a community-based flood early warning system (CBFEWS) for the flood high-risk areas. After the project's completion, the CBFEWS will be updated to manage residual risks from rainfall events exceeding design parameters, adopting a "safe-to-fail" approach to enhance resilience.

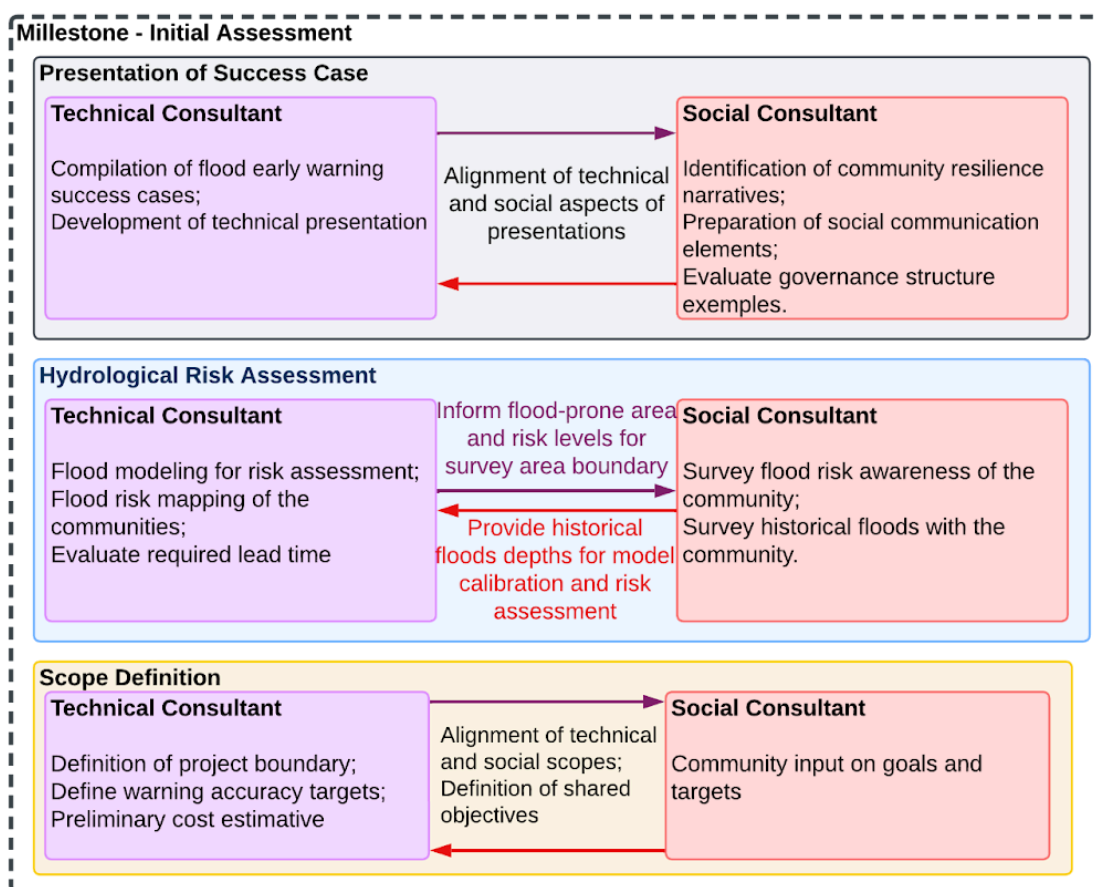
The CBFEWS community-based flood early warning system for the Acari river should be designed to work in collaboration with the local community, focusing on the dissemination of information, collection of flood data, and conducting training sessions; making the community an active stakeholder for the system. This approach aims to improve the community's flood response capabilities and enhance its overall resilience to flooding events.

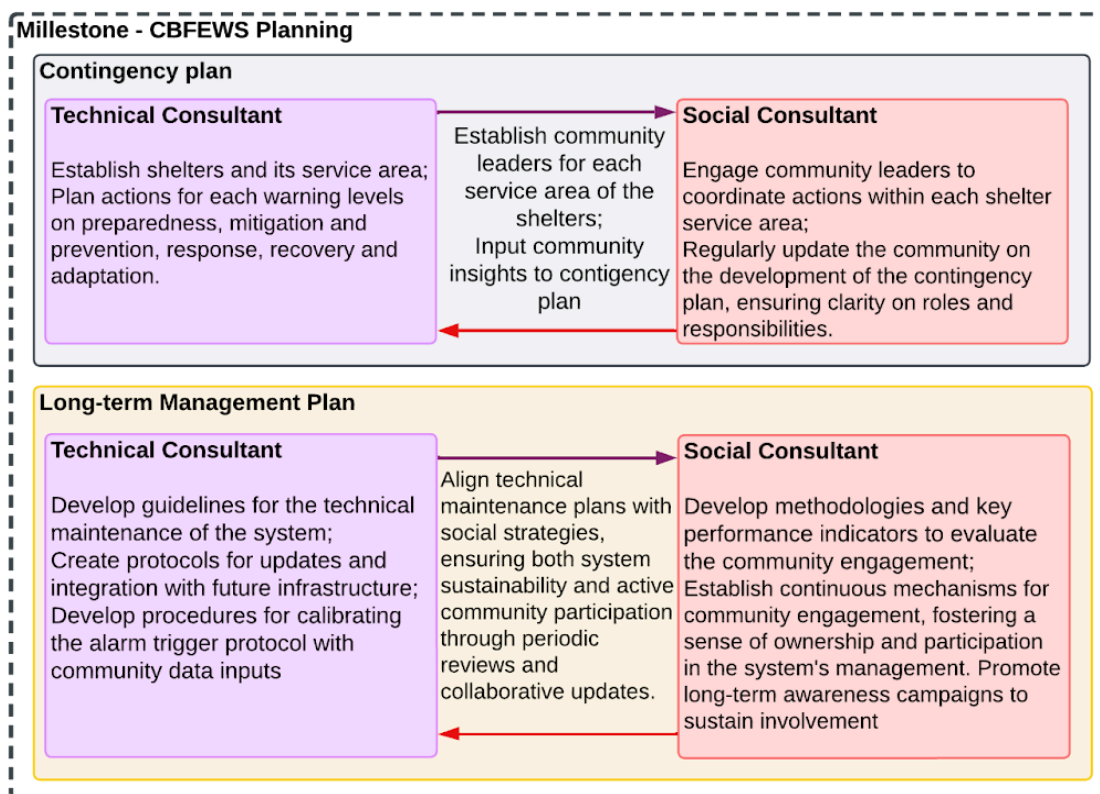
The successful implementation of the CBFEWS relies heavily on the seamless integration of technical and social expertise. The technical consultant will focus on the development of the flood monitoring infrastructure, data infrastructure assessment, and system design, while the social consultant will engage with the local community to ensure effective communication, capacity-building, and community engagement.

To achieve the project's objectives, close collaboration between the consultants is essential. Regular coordination meetings will be held to align technical solutions with community needs and feedback. The social consultant will provide insights

into community behavior and vulnerabilities, which will inform the technical consultant's design of the warning system. Similarly, the technical consultant will share system capabilities and constraints to guide the social consultant's strategies.

This interactive process will ensure that the CBFEWS is both technically robust and socially inclusive, fostering community trust and enhancing the resilience of the Acari River watershed to flooding events.





Work is underway to establish a flood protocol for the Acari River and the municipality is looking for supplementary credit to fund the installation, operation and maintenance of the flood warning system in vulnerable areas. For this purpose, four water level sensors were installed in the downstream region of the watershed.

Further contextual information can be found in the [Technical Note](#).

Project Scope and Objectives

C4O requires the services of an expert consultant to engage frontline communities and key local stakeholders in the development and delivery of Rio's community-based early warning flood system.

The assignment must achieve the following objectives:

- 1) Assess the current municipal governance for early warning systems to identify gaps and opportunities for improving coordination among stakeholders, including with communities.
- 2) Map and engage community leadership and frontline communities in the design, development and execution of the early warning system.

- 3) Develop need assessment activities with communities and fora for communities to collaboratively refine the Early Warning System framework with the city, for participants to provide input on the framework's key components, ensuring it aligns with local needs and priorities.
- 4) Build a governance plan and a dissemination and communication plan for the CBFEWS.
- 5) Design and deliver training sessions for local stakeholders.

The project will be delivered in collaboration with a Technical Consultant who will achieve the following objectives:

- 6) Complete a general assessment of available data, current planning, the hydrological and hydraulic characteristics of the basin and system structure
- 7) Map the flood high-risk areas to determine the communities that need an Early Warning System to be safeguarded
- 8) Outline the structure of the warning system, establish alert triggers, sound modelling for alarms, and determine whether to use nowcasting for triggers, setting escape routes and safe areas (shelters)
- 9) Establish an emergency protocol, with the participation of the local communities, to set responsibilities during the critical event.

Objectives 6-9 do not not fall under the scope of this RfP but coordination between the Technical and Social Consultant is expected. The RfP for the Technical Consultant can be accessed [here](#). Both consultants are expected to collaborate on the development of contingency and long-term management plans, ensuring an integrated approach that combines technical precision with community engagement. This collaboration should include regular communication, joint planning sessions, and alignment of methodologies by jointly developing a logic model and using compatible data collection and analysis tools to ensure that the technical solutions are informed by social considerations and that the social strategies are technically sound.

Consortium

If they wish to do so, suppliers can create a consortium and collectively send a proposal to C40. The consortium proposal should be a single application that covers all objectives and activities, with a clear outline of the different responsibilities of each supplier.

Project activities

The assignment must deliver activities that are closely aligned with the activities identified below. Please note that this is a non exhaustive list and Suppliers are encouraged to be creative and to make suggestions based on their knowledge and expertise.

The potential social consultancy supplier is expected to cover the following activities:

Inception workshop

- Conduct a joint inception/kick-off workshop between all of the key project delivery stakeholders e.g. Technical Consultant, Social Consultant, City of Rio, Civil Defence etc.

Strengthening governance and community engagement in the development and execution of early warning systems

- Evaluate the existing municipal governance of early warning systems to identify gaps and opportunities for enhancing stakeholder coordination, including community involvement e.g. channels of communication and engagement with communities;
- Conduct a community leadership mapping in collaboration with Civil Defense and the municipal secretariat of social assistance, incorporating an assessment of the community's risk knowledge and response capacity;
- Co-present with the Technical Consultant in a workshop or more the concepts of community-based flood warning systems and successful case studies to the municipal technical teams and to the representative of the communities involved;
- Build a governance plan by defining the roles, responsibilities, and decision-making structures for stakeholders involved in the CBFEWS. This includes setting up policies, coordination mechanisms, resource allocation, and monitoring frameworks to ensure the system operates effectively and sustainably.
- Build a dissemination and communication plan by establishing strategies and tools for effectively sharing flood warnings and related information with the community and stakeholders. This involves identifying target audiences, designing clear communication channels (e.g., sirens, SMS alerts, or community meetings), and training people to understand and respond to early warnings promptly.
- Collaborate with Rio de Janeiro Civil Defense and the Technical Consultant to set a clear community engagement plan to test and collect feedback from the communities on possible solutions for shelter, travel options, to establish a communication protocol and any other aspect that emerges from communities as a need in relation to the the EWS design, development and execution;
- In cooperation with community leaders, ensure data collection/traditional knowledge practices are gathered and collated from communities;

- Develop a comprehensive communication plan, including a clear protocol, to disseminate information about flood risks and operational details of the warning system (communities will determine the best ways of communicating the risks considering their culture and realities).

Design and deliver training sessions for local stakeholders

- Co-host workshops to present and gather feedback on different iterations of the EWS framework (to be defined how many are needed with the Technical Consultant) to enable city stakeholders and communities to collaboratively refine the framework; co-create and validate protocols; build ownership and consensus.
- Develop and deliver a workshop for instructing the community on using the app Survey 123 for flood depth data collection;
- Develop and deliver, in collaboration with Civil Defence, a series of participatory training modules that build upon the existing Civil Defense training programmes. These modules should enable frontline communities to:
 - Deepen their understanding of EWS and their role in disaster preparedness;
 - Co-develop community-specific strategies for effective EWS utilisation and response;
 - Strengthen their capacity to lead and participate in all phases of the EWS (including future developments), from risk assessment to dissemination and response.

3. Proposal Guidelines

This Request for Proposal represents the requirements for an open and competitive process. Proposals will be accepted until *4 pm BRT, February 10th, 2025*. Any proposals received after this date and time will not be accepted. All proposals should include clear timetables, how you will work with C40 and technical consultant, clear costs and detail on experience in this area.

Proposals should be no longer than ten pages long. CVs of staff should be no longer than two pages.

The proposal should give C40 evaluators all the information they need to assess your bid. Please clearly indicate where applicable:

- How your proposal is responsive to the Evaluation Criteria;
- The assumptions you are making about the project;
- Risks you have identified and appropriate mitigation measures;
- Information about your fee;
- Proposed timeline of implementation;

- Any additional support that you need to make the project a success, including any inputs you will need from third parties or C40 staff;
- Proposed working partnership with C40, including (as applicable) project governance and management, key personnel, key roles and responsibilities, and escalation procedure for issues.

You must include adequate information about how your costs were calculated to enable evaluation of cost reasonableness.

You may also consider asking for any other additional information relevant to your project. For example:

- Examples of past work;
- Resumes of proposed key personnel
- Information about the organisation's commitment to equity, diversity and inclusion and ethical alignment with C40;
- Company history,
- Executive background;
- Information on company size;
- Organisational charts;
- Explanations of their processes;
- List of current systems (if relevant),

Supplier Diversity

C40 is committed to supplier diversity and inclusive procurement through promoting equity, diversity and inclusivity in our supplier base. We believe that by procuring a diverse range of suppliers, we get a wider range of experiences and thoughts from suppliers and thus are best able to deliver to the whole range of our diverse cities and the contexts that they operate within.

We strongly encourage suppliers (individuals and corporations) that are diverse in terms of size, age, nationality, gender identity, sexual orientation, majority owned and controlled by a minority group, physical or mental ability, ethnicity and perspective to put forward a proposal to work with us.

Feel welcome to refer to [C40's Equity, Diversity and Inclusion Statement](#) as supplier diversity and inclusive procurement is one element of applying equity, diversity and inclusion to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities.

Contract

Please note this is a contract for professional services and not a grant opportunity. Organisations unable to accept contracts for professional services should not submit bids. The work will be completed on the [C40 Standard Services Contract](#)

If C40 are unable to execute a contract with the winner of this competitive process, we reserve the right to award the contract to the second highest Potential Supplier

Subcontracting

If the organisation submitting a proposal needs to subcontract any work to meet the requirements of the proposal, this must be clearly stated. All costs included in proposals must be all-inclusive of any outsourced or contracted work. Any proposals which call for outsourcing or contracting work must include a name and description of the organisations being contracted.

4. RfP and Project Timeline

RfP Timeline:

RFP Timeline	Due Date
Request for Proposals sent out	January 15, 2025
Questions submitted to C40	January 24, 2025
C40 responds to questions	January 27, 2025
Deadline for receiving Offers	February 10, 2025
Evaluation of Proposals and Clarifications	February 11-18, 2025
Selection decision made	February 19, 2025
All Potential Suppliers notified of outcome	February 20, 2025

Project Timeline	Due Date
The project initiation phase must be completed by	<i>March 10, 2025</i>
Project planning phase must be completed by	<i>March 24, 2025</i>

Project implementation phase is expected to be completed by	<i>October 31, 2025</i>
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5. Proposal Evaluation Criteria

Proposals will be evaluated against the following criteria

Evaluation Criteria	Weighting
Local Knowledge and Community Engagement	40%
Social Capacity and Expertise	20%
Cost-Benefit and Budget	25%
Timeline and Deadlines	10%
Alignment with C40 Goals and Values	5%

Local Knowledge and Community Engagement. Understanding the specific characteristics of the Rio Acari basin, including its social and cultural context, will be a key evaluation point. Proposals that demonstrate familiarity with local communities, their needs, and previous social work in the region will be rated higher. A strong proposal will include plans to actively involve stakeholders, such as local residents, municipality authorities, ensuring transparent communication and alignment with community priorities.

Social Capacity and Expertise. The proposals will be evaluated based on the consultancy's demonstrated ability to engage effectively with local communities and stakeholders. This includes prior experience in projects requiring community involvement and capacity-building activities. The qualifications of the team will be assessed to ensure they have expertise in community outreach, participatory planning, and social impact analysis. Proposals should present a clear methodology for fostering community engagement, promoting awareness about flood risks, and facilitating the adoption of flood warning systems.

Cost-Benefit and Budget The financial aspect of the proposals will be carefully analyzed to ensure a clear justification of the budget in relation to the project's benefits. Proposals must present a thorough cost-benefit analysis, demonstrating that the investment will lead to substantial improvements in flood prevention and

warning capabilities. Additionally, consultancies should include contingency plans to account for any unforeseen expenses or adjustments during implementation. Proposals that offer scalability and long-term cost efficiency will be viewed favorably.

Timeline and Deadlines. The ability to deliver the project within the proposed timeline will be a critical factor in the evaluation. Proposals should present a detailed timeline with clear milestones from the beginning to the operational phase of the flood warning system. The track record of the consultancy in meeting deadlines for similar projects will also be considered. A proposal that demonstrates flexibility in adjusting to project needs without compromising deadlines will be particularly valued, ensuring both timely and adaptive project execution.

Alignment with C40 Goals and Values. The proposed solutions contribute to sustainable and safe water resource management and climate change mitigation in urban areas. The approach facilitates the transition towards low-carbon and climate-resilient water systems in the target city. Alignment with C40's values of diversity and inclusion.

6. Project Budget

All proposals must include proposed costs to complete the tasks described in the project scope, including all VAT and taxes. Costs should be stated as one-time or non-recurring costs or monthly recurring costs. All costs incurred in connection with the submission of this RfP are non-refundable by C40.

Cost-effectiveness is a criteria for successful appointment

Total proposed project costs (incl. VAT and other 'hidden' costs, if applicable) should not exceed 20,000 USD.

7. C40 Policies and additional materials

C40 expects third parties to be able to abide by these C40 policies

- Non-Staff Code of Conduct Policy [here](#)
- Equity, Diversity, and Inclusion Policy [here](#)
- C40 Safeguarding Policy [here](#)
- C40 Non-Staff Travel and Expenses Policy - if applicable - [Here](#)

C40 recently released a [guide for cities](#) on effective emergency preparedness for flooding and drought. The guide provides a detailed roadmap for how to implement early warning systems and emergency responses in cities. Suppliers are encouraged to use the information in this guide to help build their proposal.

8. Submissions

Each Potential Supplier must submit 1 copy of their proposal to the email address below by February 10th 2025 at 4pm BRT.

- Connor Muesen, Inclusive Climate Action Manager: cmuesen@c40.org
- Pedro Ribeiro, Head of Water: priberio@c40.org

Anonymised responses to all questions submitted will be provided [HERE](#) once the period closes.

Disclaimer

C40 will not accept any liability or be responsible for any costs incurred by Potential Suppliers in preparing a response for this RFP.

Neither the issue of the RFP, nor any of the information presented in it, should be regarded as a commitment or representation on the part of C40 (or any of its partners) to enter into a contractual arrangement. Nothing in this RFP should be interpreted as a commitment by C40 to award a contract to a Potential Supplier as a result of this procurement, nor to accept the lowest price or any tender.