URBAN OCEAN

PROJECT STATEMENT

Salvador

Empowering Waste Pickers and Cooperatives to Increase Recycling in Salvador

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Resilient Cities Network (R-Cities)

Authors:

R-Cities

Ocean Conservancy

The Circulate Initiative

Prefeitura Municipal de Salvador

SOLOS

Editor:

Alexander Brown

Translator:

Quentin Pope

Design/layout:

Razvan Zamfira

Program description:

Urban Ocean

Contact:

mcampbell@resilientcitiesnetwork.org

Malcolm Robinson Campbell, Urban Ocean Program Manager, R-Cities

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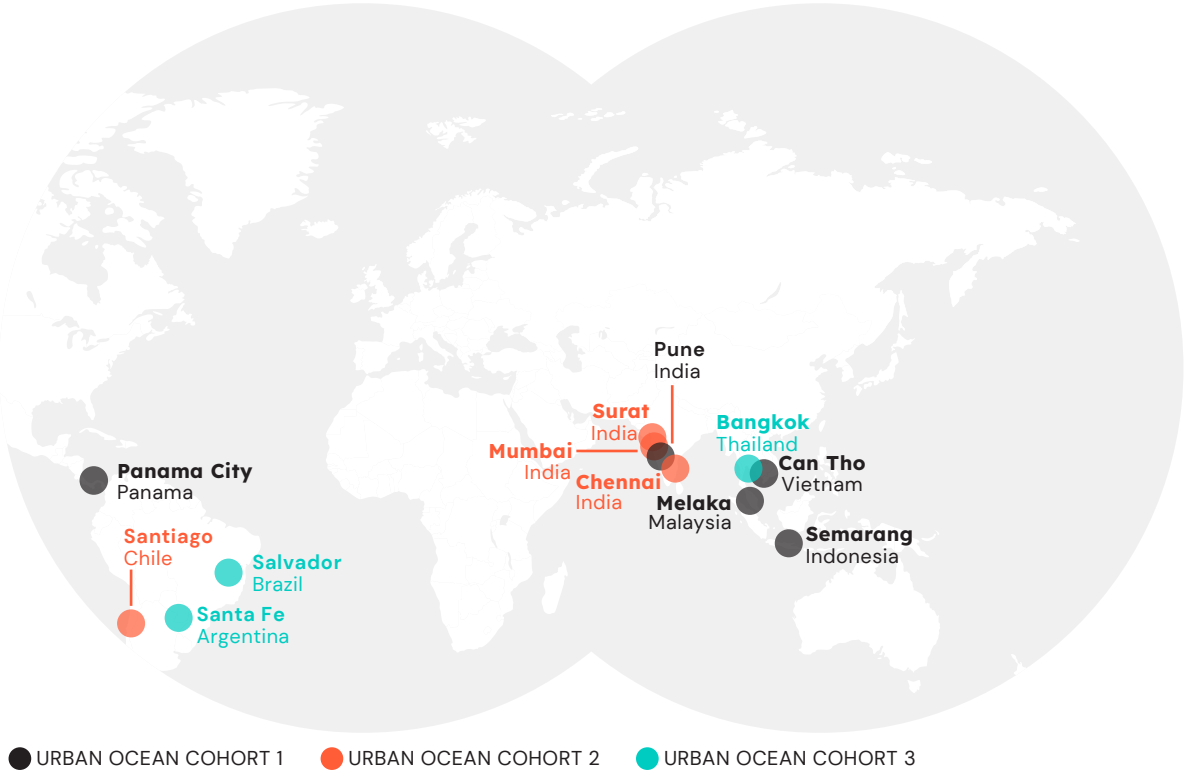
1. Introduction to Urban Ocean

Urban Ocean is a capacity-building and accelerator program for cities that champions circular economy principles, builds awareness of ocean plastic pollution, and assesses waste management systems. The program works with city leaders to bring new ideas, partners, and resources together to solve interrelated resilience challenges associated with waste management, reduce plastic leakage, and protect the ocean and other water bodies. It demonstrates how actions to improve waste management and recycling can provide resilient and sustainable solutions that reduce ocean plastic pollution while addressing key city priorities such as improving public health, supporting economic development, and reducing greenhouse gas emissions. Furthermore, Urban Ocean provides cities with the opportunity to showcase leadership and share knowledge and experience across the Resilient Cities Network community and beyond.

The program is jointly led by Resilient Cities Network, Ocean Conservancy, and The Circulate Initiative, in partnership with the City of Salvador, through its Department of Sustainability, Resilience, Well-being and Animal Protection and SOLOS.

FIGURE 1
Urban Ocean Cities



Overview of the Urban Ocean Challenge

Cities are home to over half of the global population and account for nearly three-quarters of global greenhouse gas emissions. Neither climate nor social targets will be met without a deep transformation of urban centers

towards a more inclusive, sustainable and, ultimately, resilient path. Approaching urban waste management systems through a resilience lens reveals complex, interrelated ramifications for social, economic, and environmental systems. The International Labor Organization estimates that the waste management sector alone has the potential to create 45 million jobs globally by 2030 while reducing greenhouse gas emissions by 15 to 20 percent. Additionally, within the same time frame, circular economies offer a $4.5 trillion USD economic opportunity by reducing waste, stimulating innovation, and creating employment. Currently, plastic usage continues to grow, remaining a threat to public and environmental health in the ocean and in cities. City governments have a unique opportunity to implement policies and projects that promote a more resilient and circular waste sector in their cities. Now is the time to set out on the path towards a more resilient urban–ocean relationship that highlights the importance of preventing marine plastic debris. mportance of preventing marine plastic debris.

Urban Ocean Cities

Urban Ocean works closely with cities to demonstrate tangible solutions and highlight progress in addressing waste management challenges. The first cohort of Urban Ocean cities, launched in 2020, included Pune (India), Can Tho (Vietnam), Panama City (Panama), Semarang (Indonesia) and Melaka (Malaysia). In 2022, the program expanded to four additional cities in Cohort 2 – Chennai, Surat, and Mumbai (all in India) and Santiago (Chile), and then in 2024 to Cohort 3 – Salvador (Brazil), Bangkok (Thailand), and Santa Fe (Argentina). This expansion aimed to broaden the program's geographic scope, strengthen waste management, circular economy, and resilience ecosystems, increase collaboration with local governments, and establish effective waste management systems that generate environmental, social and economic co-benefits for cities.

Program Objective

Urban Ocean provides a platform for ocean advocates, city leaders and allies to join forces with other collaborators in developing comprehensive solutions that meet the needs and priorities of cities and their communities, creating meaningful and sustainable impact. The program provides and coordinates baseline assessments to gauge the efficacy, challenges, and opportunities of existing waste management systems. Urban Ocean sparks critical conversations that help participating cities identify, develop and implement solutions to improve waste management and reduce plastic pollution through circular and resilient lenses that also promote social inclusion, public health, environmental protection, and reductions in greenhouse gas emissions. Once opportunities are identified, Urban Ocean supports cities to attract support to implement solutions.

Program Approach

Urban Ocean provides support for cities to develop strategies and projects designed to address the interrelated challenges of ocean plastics and community resilience. The program approach in cities is shown figure 2.

FIGURE 2
Urban Ocean Program Approach

Project Statement

This project statement is the result of two years of work and dedication by the City of Salvador, SOLOS and the Urban Ocean team to develop specific actions that the city hopes will advance solutions to address plastic waste challenges. The project statement is based on the results of a Circularity Assessment Protocol (CAP), a rigorous gap assessment process and several one-on-one interactions and consultation sessions that helped the city pinpoint the best' opportunities for impact. It outlines the context and the needs of the city on which the project is built. It provides the city's vision and outlines the desired impact.

The statement presents the specific characteristics and conditions of Salvador that have a direct impact on the detailed project. For a more detailed overview of the functioning of the waste management system and the local political context, see Salvador's Waste Management Profile. For a more comprehensive analysis of material flows and opportunities to drive the transition to a more circular economy, see the Circularity Assessment Protocol. Both documents were developed within the Urban Ocean framework.

2. Executive Summary

This project statement presents a proposal to establish a Circularity Support Hub (CSH) for informal waste pickers and recycling cooperatives in Salvador, Brazil. Waste pickers carry out most of the city's limited recycling, but work in unsafe and unsanitary conditions, with little to no support or recognition. A lack of targeted investment and coordinated action between stakeholders results in recycling actions remaining short-lived, geographically limited and often insufficient. By integrating waste pickers into the waste-value chain, the project aims to empower them by legitimizing their work, offering basic services and providing necessary equipment, infrastructure and capacity. In doing so, the CSH will seek to reduce ocean pollution and protect natural ecosystems in and around Salvador, while increasing the resilience of the waste management system and addressing inequity and multidimensional poverty among some of the most vulnerable communities in Salvador.

Salvador Context

Salvador, the first capital of Brazil and one of the country's largest cities, is well known for its culture and natural beauty. Home to one of the largest events in the world, Carnaval, the city has leveraged its beaches, bustling music and events scene and Afro-Brazilian identity to become one of the most popular destinations in Brazil. Situated around the Baia de Todos os Santos, the largest bay in the country, the city relies heavily on its water bodies for tourism, transportation, trade, income and food security.

However, the city faces significant challenges at the intersection of the economy, infrastructure and the environment. Formal, competitively compensated labor opportunities are limited, leading to a large informal sector, high levels of poverty and inequity. The city also suffers from a lack of access to adequate housing and sanitation infrastructure, exacerbating flood risk and pollution while compromising the natural environment.

Current State of Waste Management in Salvador

While Salvador has made significant advances in recent years, its waste management system remains highly linear. The city is served by a curbside collection service covering almost all households in the city. Virtually all solid waste is sent to landfill, with the city reporting a recycling rate of less than four percent (Circularity Informatics Lab, 2024). Salvador has made strides to improve circular outcomes, but progress has so far been limited and inconsistent.

There is also significant leakage and pollution in natural and marine environments. Illegal dumpsites, often located in nature or near rivers, are still prevalent throughout the city. Analyses found relatively high densities of waste across a variety of urban areas. Rivers in the city, upon which many people rely for drinking water and sanitation, are highly polluted – only one of the 12 still supports aquatic life.

In Salvador, informal waste pickers conduct almost all recycling. They operate both independently and through associations called cooperativas. However, waste pickers invariably face precarious and unsafe working conditions, with inadequate infrastructure and often no protective equipment. Moreover, because their work is informal, they largely lack social guarantees, labor rights and access to basic services and insurance. Finally, given their position of vulnerability and lack of access to training and capacity building, they often engage with buyers on uneven terms, relying on intermediaries instead of selling directly to industry.

PRIORITY CHALLENGES IDENTIFIED

1. Lack of policy initiatives and regulations for compliance in the marketing and sales of products and packaging in the city.
2. Limited coverage of separate collection services, preventing the growth of recycling and effective solid waste management.
3. Heavy reliance on recycling intermediaries and a lack of direct support for waste collectors, reducing

the efficiency of circular economy programs.

PRIORITY OPPORTUNITIES FOR ACTION

1. Input: Invest in solutions to meet sustainability goals and conform to regulations.
2. Collection: Service provision contracts for separate collections to increase recycling coverage.
3. End of cycle: Collaborative programs with waste pickers to limit negotiations with intermediaries.

Circularity Support Hub

The proposed Circularity Support Hub will be a new facility to promote fair and inclusive recycling in Salvador. This facility will provide the equipment, infrastructure and capacity-building services that waste pickers and cooperatives require to safely and efficiently recycle collected materials. It will also provide a space for independent waste pickers to sell recyclable waste to recycling cooperatives, who will then handle the sorting process and routing towards the recycling industry. Finally, it will serve as a reference point and registration center for waste pickers, while also ensuring their access to basic services such as identity cards and vaccination campaigns.

OBJECTIVE

Increase recycling in Salvador with a focus on fairness and inclusivity, through Brazil's first public facility to provide technical and social support for self-employed waste pickers.

SPECIFIC OBJECTIVES

- → Reduce plastic in water bodies, including the ocean, in and around Salvador
- → Improve payment and working conditions of waste pickers and cooperatives
- → Provide access to basic services
- → Formalize and professionalize informal waste collection
- → Provide infrastructure
- → Build capacity
- → Collect data

EXPECTED OUTCOMES

- → Increasing rates of recycling and reduced plastic pollution in Salvador
- → Establishing and strengthening partnerships
- → Improving working and living conditions for waste pickers
- → Promoting social inclusion and well-being of the waste pickers
- → Strengthening recycling cooperatives
- → Transforming the recycling market
- → Deploying an innovative model of technical and social assistance
- → Establishing a database for public policies

Enabling Environment

Over the past several years, the City of Salvador has increasingly prioritized resilience, sustainability and improved waste management practices. The city has developed a Resilience Strategy (Resilient Salvador, 2019) and a Climate Adaptation and Mitigation Plan (ICLEI, 2020), both of which address the intersecting challenges of climate, pollution and equity to varying degrees. The city's Sustainability and Resilience Office has become a national pioneer in promoting a systems-based approach to protect the natural environment and biodiversity, while striving toward a more inclusive development model.

Similarly, the city has also recently placed focus on circular economies. Recycling programs on beaches and during large events have served to awareness and engage the private sector, driving increased investment and resulting in hundreds of tons of waste being recycled instead of going to landfill. Finally, there is a growing understanding of the importance of waste pickers, with more and more leaders within the sector and cooperatives participating in the public dialogue and collaborations with government and industry.

Project Implementation

The project will be implemented over 10 quarters, or 30 months, at an estimated cost of R$ 2,637,432.00 BRL or approximately USD $450,000 as of March 2025.

TABLE 1 WORK PLAN

	Implementation components	Y1/Q1	1/2	1/3	1/4	2/1	2/2	2/3	2/4	3/1	3/2
1	**PLANNING AND MOBILIZING**										
1.1	Governance council										
1.2	Infrastructure project										
1.3	Mobilization										
1.4	Communications and Partnerships										
2	**IMPLEMENTATION**										
2.1	Infrastructure										
2.2	Recycling cooperative selection										
2.3	Supplies										
3	**OPERATION**										
3.1	Waste picker engagement										
3.2	Waste picker and recycling value-chain empowerment										
3.3	Sales to industry										
3.4	Access to social services										
3.5	Data management										

A More Circular and Resilient Salvador

The Circularity Support Hub aims to improve waste management while promoting social inclusion, improving labor safety and increasing the income of informal waste pickers. By empowering and legitimizing the work of waste pickers and their associations, the project will provide a springboard for Salvador to reduce plastic leakage and increase recycling. Under an integrated governance system backed by policy, community engagement and intersectoral cooperation, informal waste pickers can be key actors in building a more resilient circular economy in Salvador.

3. Salvador Context

Overview

Salvador, capital of the state of Bahia, was also Brazil's first national capital, and is now the country's fifth largest municipality in terms of population, with almost 2.5 million inhabitants. Situated on Brazil's largest bay, the *Baia de Todos os Santos,* the city has the second-longest coastline in Brazil. The sea is the most important asset for many local neighborhoods, in terms of both real estate development and the culture of subsistence fishing.

However, the city faces major social challenges, such as a lack of formal jobs, which leads to significant social inequalities. This economic reality is linked to inadequate sanitation and waste collection, presenting further difficulty in ensuring public health. In this context, the city has been working to improve its waste collection coverage and to promote recycling and the circular economy.

Salvador is one of Brazil's largest and oldest cities. It is also an important economic center, and the country's second largest tourist destination. Despite economic growth, income inequality remains a problem, with significant disparities between different socioeconomic groups. According to the 2022 Brazilian Census (IBGE, 2022), 37.4 percent of Salvador's workers are in the informal sector.

FIGURE 3
Location of the City of Salvador (City of Salvador, 2023)

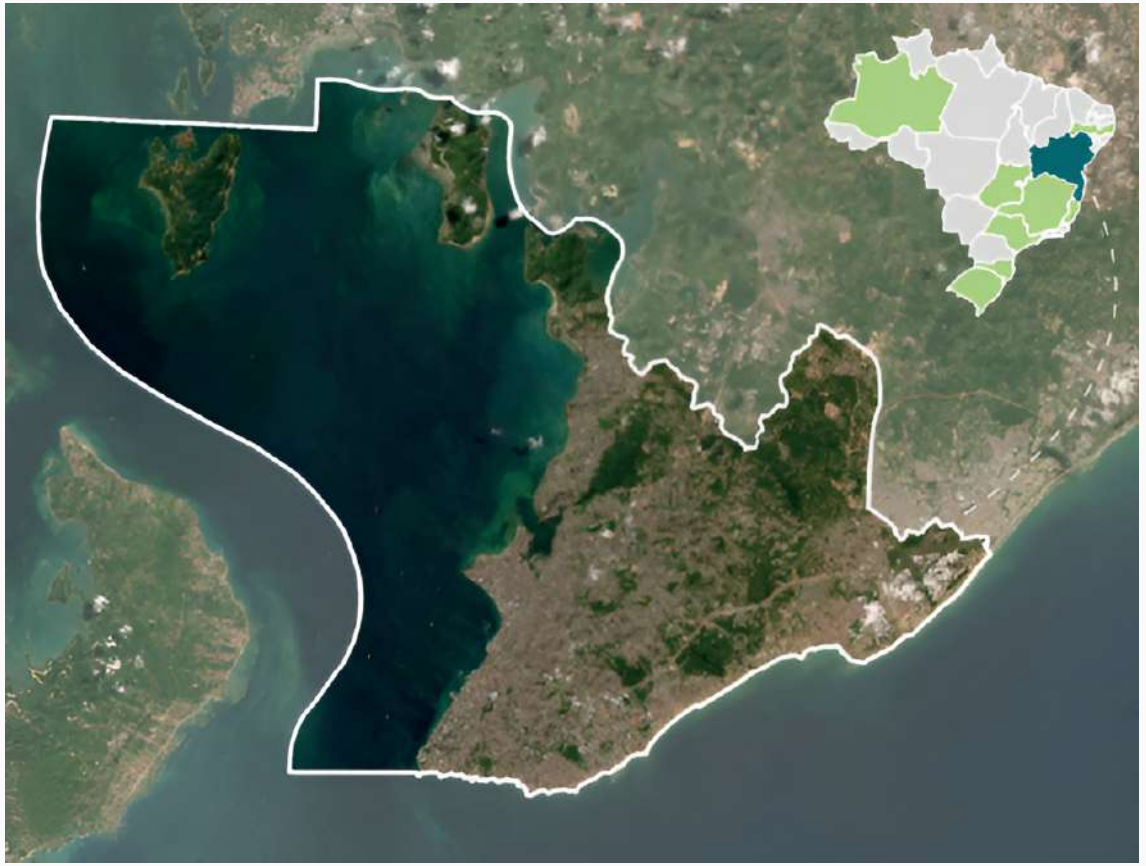


FIGURE 4

District divisions of Salvador (100 Resilient Cities, 2019)

2.4 million
Population (2020)[1]

≈ 41%
households in informal settlements[3]

3,486 per km²
Population density[2]

693.44 km²
Total area[4]

196.26 km²
Urban area[5]

92.8%
Adequate sanitation[6]

30.83 m²
Green area per inhabitant[7]

R$ 21,706.06BRL
GDP per capita[8]

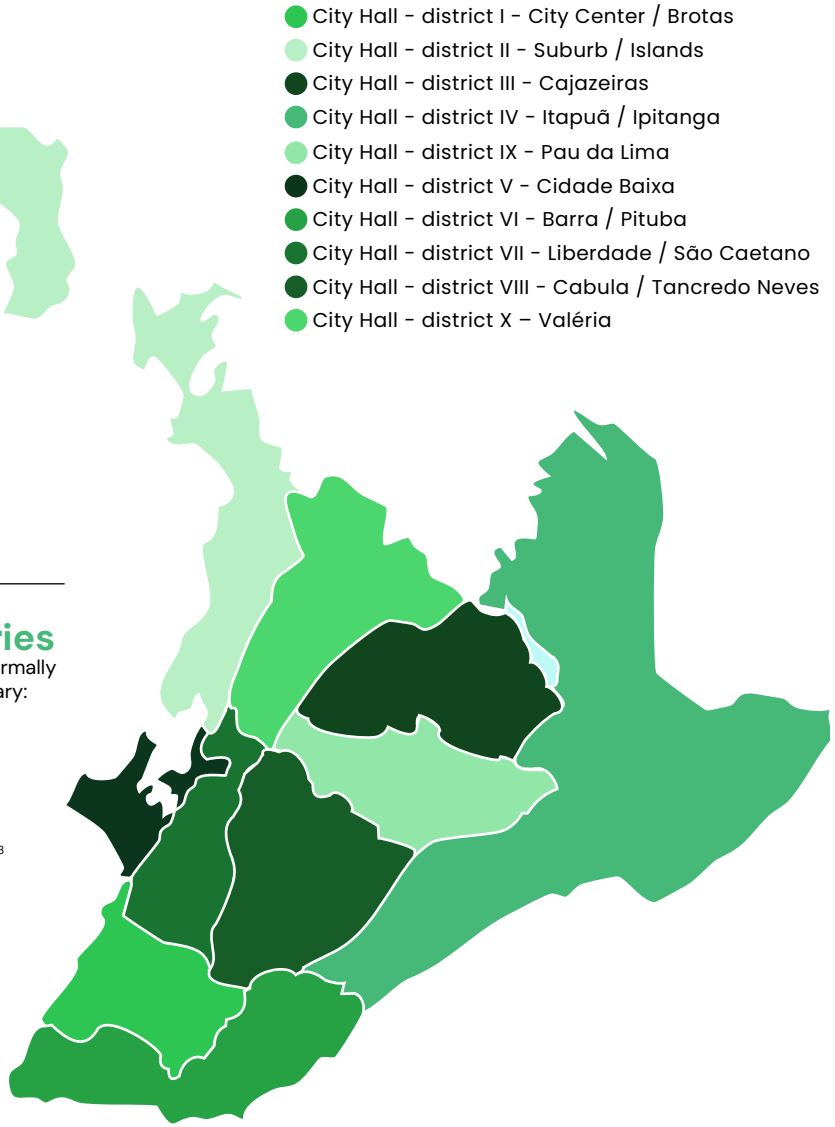
37.79%
Employment rate[10]

3.1 min. salaries
Average salary among formally employed (Minimum salary: R$1,518.00 BRL)[12]

0.759
Municipal Human Development Index[9]

36.8%
Workers making up to 0.5 minimum salaries[11]

R$ 479 MBRL
City budget for waste management (6.44% of total budget)[13]



[1,2,4,5,8,10,12] IBGE, 2022 [3] IBGE, 2019 [13] Casa Civil, 2019 [6,9,11] IBGE, 2010 [7] SEMOB, 2015

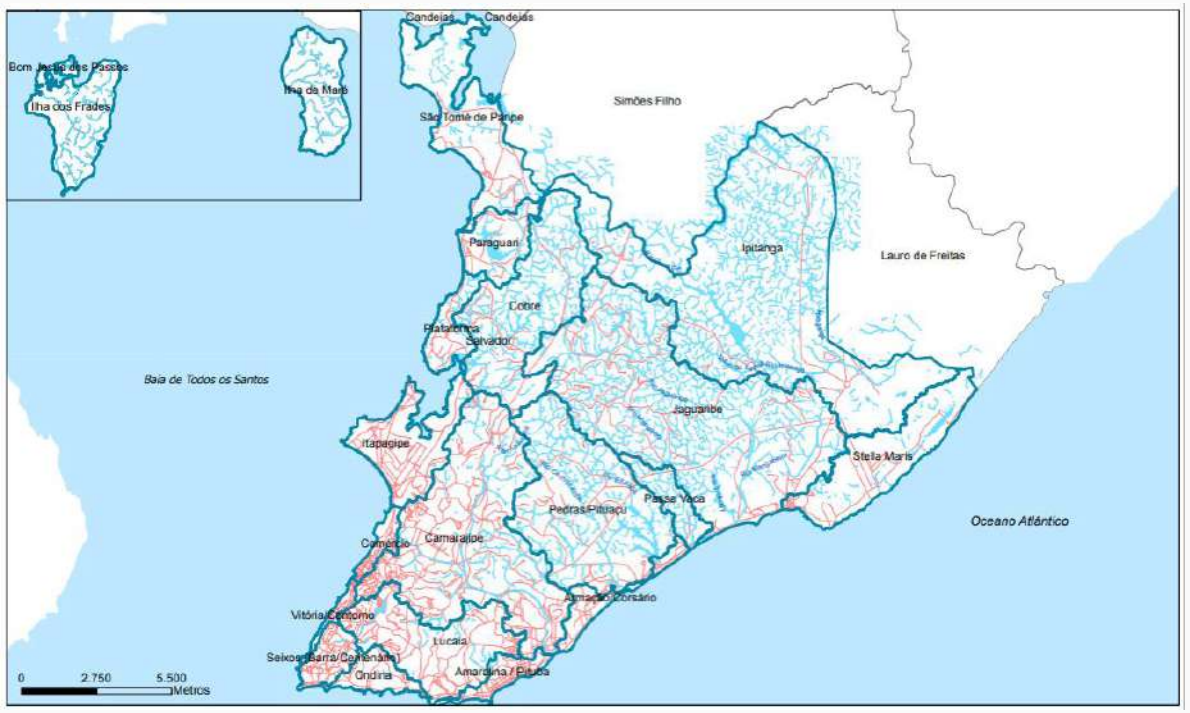
Urban-Environmental Development

URBANIZATION

Developed on a geological fault that divides the city into upper and lower urban areas, Salvador experienced rapid growth at the end of the 20th century. Some of the lowest income populations settled in the lower-lying parts of the city, while the better off settled on higher ground, reflecting and exacerbating social inequalities. Almost 45.5 percent of the population lives in areas at risk of landslides and flooding, a critical concern for localized and place-based policy making, especially in light of the worsening climate crisis and increasingly intense flooding.

FIGURE 5

Salvador's Rivers and Hydrographic Basins (SEDUR, 2016)



SALVADOR'S RELATIONSHIP WITH ITS RIVERS, LAKES AND THE OCEAN

The history, economy and culture of Salvador and its people are closely linked to its bodies of water. Since the city's founding, they have been essential for the city's development. Salvador was founded at the entrance of the *Baia de Todos os Santos* to leverage from the strategic, logistical and natural benefits and resources of this location. The many rivers and streams guaranteed fertile soil and freshwater supplies for the settlers. These bodies of water helped Salvador become one of the earliest settlements in the Americas and, later, the first capital of Brazil.

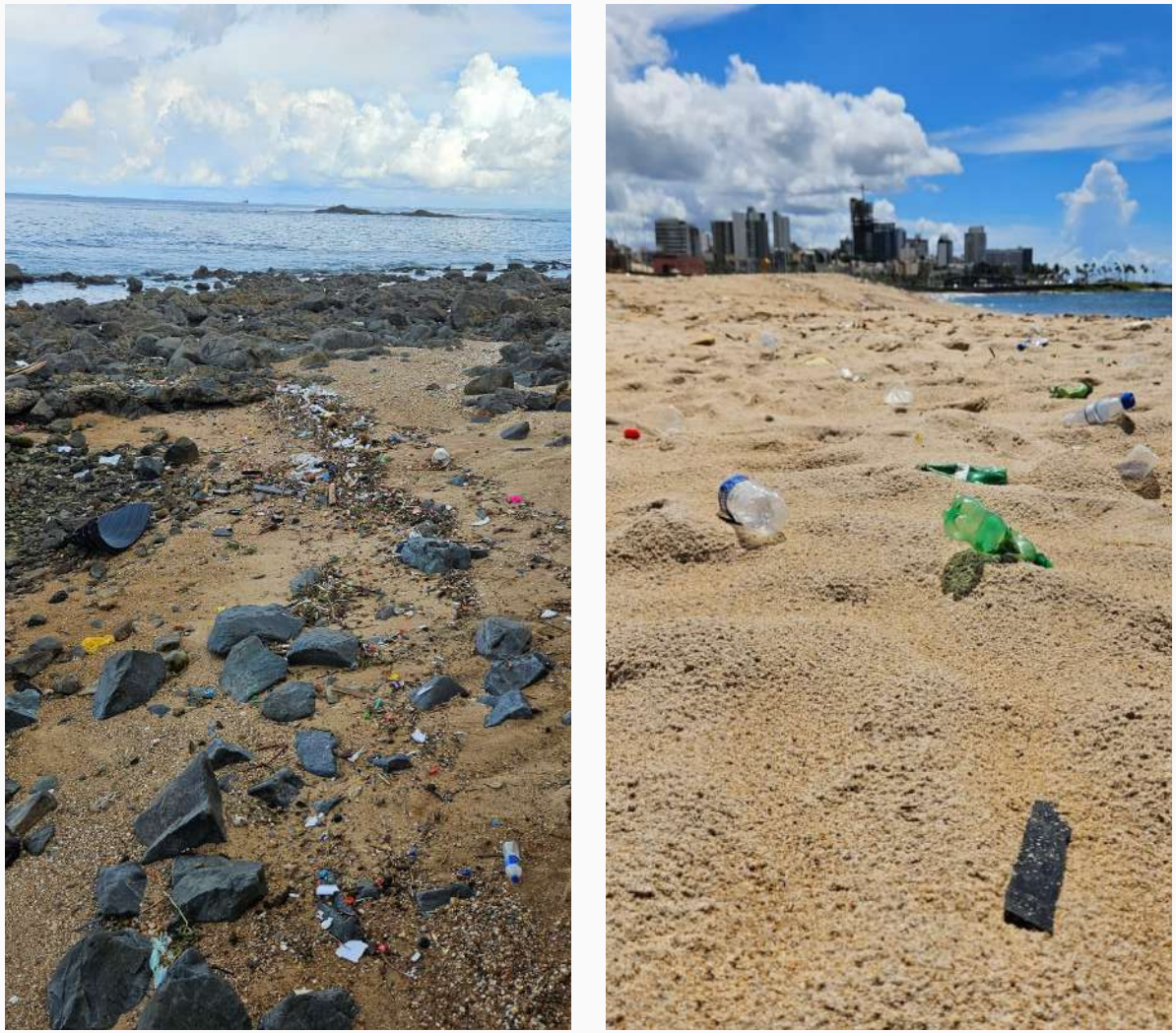
For its water supply, Salvador has a system that is connected to several neighboring cities, using various freshwater sources, primarily local rivers. These rivers supply the dams and reservoirs of the city's water system. These natural water sources are part of the city's heritage, highlighting their fundamental historical importance.

Rural migration has caused rapid urbanization and a drastic increase in population density, resulting in the unplanned and informal settlement of land in Salvador. In an attempt to meet the new inhabitants' infrastructure needs, the city effectively "erased" many rivers, in practice covering many of them up with concrete and asphalt and/or polluting them.

Inadequate interventions and settlements have posed risks and had undesirable consequences for the population, such as flooding, pollution and heat.

FIGURE 6

Snapshots of Solid Waste on Salvador's beaches



Salvador's Waste Management System

POLLUTION

The Circularity Assessment Protocol Report for Salvador (Circularity Informatics Lab, 2024) contains valuable information about the situation of solid waste and its impact on the city, particularly concerning plastic pollution, notably:

- Some 97 percent of consumer-packaged goods found in Salvador are produced in Brazil, with a high concentration of production around Salvador itself.
- Multilayered packaging (48.1 percent) and polyethylene terephthalate (PET; 25 percent) are the main packaging materials, especially for foodstuffs and convenience products.
- Waste density in Salvador is a particular cause for concern, with an average of 1.11 items per square meter.

Food-related plastics, such as cups and packaging, make up the bulk of the waste entering the ocean in urban and coastal areas. Plastic debris, cigarette butts, and personal protective equipment are also among the most common types of waste found.

SOLID WASTE MANAGEMENT

In the city of Salvador, municipal solid waste (MSW) is mainly collected door-to-door. Some indirect collection, where the waste is placed in containers, fixed bins or other receptacles for later collection by the urban waste-disposal service, also takes place.

Currently, almost all solid urban waste generated in Salvador is taken to the Metropolitan Landfill Center. In addition to this landfill site, a transit center provides temporary storage space for MSW before its final disposal. This optimizes time, distance and transport costs for handling waste. In 2020, the transit center received 792,295.63 tons of the total of 979,463.98 tons of MSW sent to Salvador's Metropolitan Landfill Center (more than 80 percent).

The municipality's sanitation authorities can outsource the provision of these services through tenders, permits and third-party authorizations. The Urban Cleaning Company of Salvador (LIMPURB) is a government entity that has the exclusive attribution to plan, organize, coordinate and subcontract Salvador's sanitation services.

RECYCLING

Recycling coverage in Salvador is less than four percent. This recyclable waste is mainly processed by waste pickers and recycling cooperatives. These workers collect and sort materials, gaining employment and income by selling on the waste. In the municipality of Salvador, there are 14 cooperatives and three associations of pickers registered with LIMPURB; they operate with their own resources or through service contracts for collections from residential buildings and/or businesses.

Waste pickers are individuals, groups or families who depend on the collection of recyclable waste for their income. Many of them work autonomously or in cooperatives, in precarious and informal conditions, without access to the proper infrastructure, social protection or workers' rights. They face health risks, financial insecurity and a lack of recognition for their important role in the recycling chain. Their work contributes approximately 97 percent of total recycling in Salvador (Reis-FIlho et al., 2025); without these workers, much of the waste that is recycled today would end up in landfills, exacerbating environmental problems and wasting valuable resources.

Throughout the year, LIMPURB also runs incentive programs that provide garbage-disposal vehicles to the cooperatives. Each cooperative uses these vehicles to provide a service along specially defined routes, collecting recyclable materials through the Ecopontos and SO+MA initiatives, both of which reward delivery with points systems and cash payments.

The recently concluded tender process for urban cleaning services and solid waste management will introduce separate door-to-door collections in two separate cleaning districts, with plans for expansion.

Policies and Decrees

TABLE 2 RELEVANT NATIONAL AND LOCAL POLICIES AND REGULATIONS

#	Instrument	Key Provisions
National Policies	**Federal Decree No. 10.936/2022**	Regulates the National Solid Waste Policy, defines waste management procedures during product lifecycles, imposes fines and makes producers financially liable for hazardous waste.
	Law No. 12.305/2010 (National Solid Waste Policy)	Establishes principles and tools for the integrated and proper management of solid waste, prioritizing prevention, reduction, reuse, recycling and environmentally sound disposal.
	Decree No. 11.044/2022 (Recicla+)	Sets up a Recycling Credit Certificate to promote recycling and the circular economy.
	Decree No. 11.300/2022	Creates a reverse logistics system for glass packaging, including rules on the distance from production sites that promotes the use of returnable packaging.
	Presidential Decree No. 5.940/2006	Establishes separate collection at federal buildings, assigning recovered materials to waste-picker organizations.
	Law No. 11.445/2007	Allows municipalities to enter into contracts with waste-picker associations and cooperatives, promoting social inclusion and participatory management.
Local Policies	**Bahia State Solid Waste Plan (2017)**	Monitors the solid waste situation in the state, establishes guidelines and targets to improve management, in line with the National Solid Waste Policy.
	Laws Nos. 7.865/2010 and 4.461/1991	Make separate collection compulsory in Salvador's shopping centers and schools, respectively.
	Laws Nos. 9.699/2023 and 9.805/2024	Restricts single-use plastics (bags and straws) and promotes recyclable, biodegradable or edible materials.

4. Translating Challenges into Opportunities

Challenges

This section documents the main waste-related challenges facing the city of Salvador, as identified through discussions with strategic waste management stakeholders, as well as primary and secondary research. These challenges informed the development of recommendations and solutions below.

1 LACK OF POLICIES AND REGULATIONS TO ENABLE COMPLIANCE IN THE MARKETING AND SALES OF POLLUTING PRODUCTS AND PACKAGING.

The city faces difficulties in coordinating the various waste management stakeholders, such as government departments, companies, cooperatives and communities. The lack of coordination can lead to disjointed and ineffective actions. Furthermore, like many other large cities in Brazil, Salvador must contend with budgetary constraints and the need to attract external investment.

2 LIMITED COVERAGE OF SEPARATE WASTE COLLECTION SERVICES, PREVENTING THE GROWTH OF RECYCLING AND EFFECTIVE SOLID WASTE MANAGEMENT.

Salvador lacks specific public policies, and red tape causes delays in implementing the sanitation plan. The Ecopontos – collection points for recyclable materials – do not meet the city's needs, and they have lower capacity than those in many other cities. The urban area's complex geography also complicates regular waste collection and increases its cost.

3 HEAVY RELIANCE ON RECYCLING INTERMEDIARIES AND A LACK OF DIRECT SUPPORT FOR WASTE COLLECTORS, REDUCING THE EFFICIENCY OF CIRCULAR ECONOMY PROGRAMS.

The lack of direct support through training, infrastructure and safety, and the absence of policies and programs that formally integrate waste pickers into the recycling chain, combine to limit these workers' ability to collect and process recyclable materials efficiently and safely, leading to a lower recycling rate. The lack of adequate support and organization also restricts waste pickers' opportunities for improved quality of life.

Opportunities

During the Urban Ocean gap assessment process, the city led participatory workshops to identify key opportunities to improve the city's waste management sector while building more resilient communities and economies. Priority was given to the following three areas of opportunity:

1 INPUT: INVEST IN SOLUTIONS TO MEET SUSTAINABILITY GOALS AND COMPLY WITH REGULATIONS.

Recommended actions:

- → Implement public policies to offer companies incentives to invest in sustainable solutions.
- → Channel tax revenues into a fund for environmental and circular initiatives.
- → Involve stakeholders through governance initiatives into the waste management chain.
- → Encourage major brands to invest in training for cooperatives.

2 COLLECTION: ESTABLISH SERVICE PROVISION CONTRACTS FOR SEPARATE WASTE COLLECTION TO EXPAND RECYCLING COVERAGE.

Recommended actions:

- → Deploy strategic action by cooperatives towards the systematic collection of recyclable materials, including training, connections, fair prices and dignified work.
- → Pay for environmental services through a structured separate-collection program with cooperatives.

3 END OF CYCLE: COLLABORATE DIRECTLY WITH WASTE PICKERS TO REDUCE RELIANCE ON INTERMEDIARIES.

Recommended actions:

- → Purchase machines, equipment, and training.
- → Establish hubs for cooperatives.
- → Guarantee the availability of recyclables for cooperatives.
- → Set up a new industrial site to receive waste.
- → Create a support center for cooperatives that receive waste year-round.

Three of these actions were selected, resulting in the following project proposal:

The implementation of a Circularity Support Hub, integrating strategic and systematic action by cooperatives and the efficient governance of the waste value chain.

Project Justification

The project seeks to meet various essential needs to improve waste management and promote the inclusion of waste pickers in Salvador. First, given waste pickers' vital role in recycling in Salvador and their social vulnerabilities, it is crucial to implement programs that offer direct support to these workers, including training, proper infrastructure, safety, and recognition of their work. The separate-waste collection system also requires urgent expansion to increase the coverage and efficiency of available services. Therefore, another priority is to develop specific public policies to formally include waste pickers in the waste management chain and to promote recycling through clear regulations.

5. Project Description

The Circularity Support Hub (in Portuguese: *Casa de Apoio ao Catador*; CSH) is a proposed new facility to promote fair and inclusive recycling in Salvador. It will provide a space for self-employed waste pickers to sell recyclable waste to cooperatives, who will then handle the sorting process and routing towards the recycling industry. It will also serve as a reference point and registration center for waste pickers, while also ensuring their access to basic services such as identity cards and vaccination campaigns.

The CSH will bring about improvements by centralizing the sorting and routing processes. This will enable a higher volume of waste processing, taking advantage of economies of scale; it will also increase the amount of material being sold directly to industry, reduce material losses and maximize reuse. By lowering operating costs (subsidized space and equipment) and reducing reliance on intermediaries, pickers and cooperatives receive fair prices, while industry acquires materials directly and transparently. In addition, by strengthening cooperatives and creating a platform that connects them directly to buyers, they can negotiate more effectively and increase their sales. For industry, centralization helps with logistics and quality control, guaranteeing that materials meet the required standards.

The CSH also aims to set prices for recyclable materials by establishing a transparent and regulated purchasing system. Cooperatives working within the hub will receive guidance and supervision from the management team, avoiding non-compliance issues in the negotiation process. This model is highly innovative, as the sale of recyclable waste is currently highly informal, with limited control parameters and an asymmetrical relationship between waste pickers and buyers.

Participating pickers will be registered in a CSH system, where it will be possible to track various types of information about them, including registry data (e.g. name, Cadastro de Pessoa Física (individual tax) registration, gender), frequency of deliveries, average cost per kilogram, and average income per month. This information can be used to analyze participants' current conditions, providing qualitative data to help municipal decision makers expand separate-waste collection and support cooperatives more effectively.

Main Objective

Increase recycling in Salvador with a focus on fairness and inclusivity through Brazil's first public facility to provide technical and social support for self-employed waste pickers.

Specific Objectives

- **Reduce plastic waste in the oceans:** increase waste-recycling rates to prevent waste from entering rivers, seas and oceans and to help preserve the marine ecosystem and its biodiversity.
- **Improve payment and working conditions:** implement a transparent and equitable mechanism for the pricing of recyclable materials to ensure that waste pickers and cooperatives receive fair payment for their work, creating a benchmark for fair and inclusive practices in the recycling sector.
- **Provide access to basic services:** establish a system to monitor waste pickers' activities and provide them with access to basic services.
- **Formalize and professionalize:** help to formalize working relations in the recycling sector in Salvador, promoting the recognition and respect of the rights of self-employed waste pickers.
- **Provide infrastructure:** construct a strategically placed physical space in a region with a high density of waste generation and high levels of social vulnerability of waste pickers and recycling cooperatives to facilitate the sorting process and proper disposal of recyclable materials.
- **Offer training opportunities:** implement a training program for waste pickers, with practical courses, workshops with specialists and tailor-made learning materials, to improve waste management and recycling skills.
- **Collect data:** monitor and analyze data collected on registered waste pickers, producing qualitative information as a basis for public policies and decisions to improve working and living conditions for self-employed waste pickers.

Expected Outcomes

- **Increasing rates of recycling and reduced plastic pollution in Salvador**, by empowering cooperatives and waste pickers, who are currently responsible for most of the recycling in the city.
- **Establishing and strengthening partnerships**, through relationships with businesses and organizations interested in the circular economy.
- **Improving working and living conditions for waste pickers**, with access to a fair and transparent market for the sale of recyclable materials, and with appropriate support and supervision.
- **Promoting social inclusion and well-being of waste pickers** through better access to essential services.
- **Strengthening recycling cooperatives**, improving the efficiency of sorting and disposal of recyclable materials, ensuring operational capacity and autonomy.
- **Transforming the recycling market**, with a focus on transparency and justice, reducing exploitative practices and promoting a more equitable relationship between waste pickers and buyers.
- **Deploying an innovative model of technical and social assistance**, highlighting Salvador as a benchmark for fair and inclusive practices in the recycling sector.
- **Establishing a database for public policies**, to develop a better understanding of the sector and to formulate more effective public policies that meet waste pickers' real needs.

6. Project Implementation

1. PLANNING AND MOBILIZING

The first phase is to plan and validate with strategic, tactical and operational actors who will enable implementation.

1.1. Governance council

Setting up a general management team: Implementing the project requires the multidisciplinary involvement of various local government departments, with each playing a governance role.

1.1.1. Responsibilities and actors involved

Governance of the Circularity Support Hub (CSH) will involve coordination and cooperation among public entities and departments and private organizations with the twin goals of optimization and transparent management necessary to meet the needs of users and the community.

1.1.2. Approval of scope and budgets

The CSH project must be guided by a scope of work to guide the entire project cycle and to ensure that the objectives are attainable.

1.2. Infrastructure project

The project is based around a modern, functional and welcoming hub, strategically located to meet the needs of the waste pickers in their daily operations.

1.2.1. Choice of location (area and plot)

The choice of the location must ensure that the CSH is strategically located in an area with a high density of waste, easily accessible by waste pickers and near collection areas and recycling centers.

1.2.2. Technical project (civil, electrical, sanitation)

This phase defines all the structural characteristics, safety measures and services required.

1.2.3. Architectural project (use of spaces, furniture, and equipment)

This phase includes the architectural design phase, which will focus on delivering a functional and welcoming space.

1.3. Mobilization

1.3.1. Developing Engagement Plan

To ensure the effective participation of waste pickers and the project's success, the CSH's engagement plan will have five stages:

Data collection

The first phase involves collecting data from the region where the CSH will be set up. This initial analysis will provide information about local dynamics, while also identifying groups of waste pickers and their socioeconomic profile, their specific needs, and places for buying/selling materials.

Awareness-raising campaign

In the second phase, the project's awareness-raising campaign will highlight the goals and direct benefits for waste pickers who collect recyclable materials.

Participatory workshops

Participatory workshops will bring together all the stakeholders involved in the CSH, such as the mobilized waste pickers, the cooperatives, businesses, LIMPURB and local authorities.

Registering waste pickers

Waste pickers will be registered in the fourth phase. Fieldworkers will engage waste pickers individually, promoting a direct and informative dialogue about how the CSH works.

Following up with waste pickers

The fifth phase of the mobilization strategy consists of the ongoing monitoring of waste pickers registered at the CSH.

1.4. Communications and Partnerships

1.4.1. Developing Communications Plan

The project will leverage its relevance within the local context and potential impact to arouse public interest, with a focus on the press.

Broad-based messaging will highlight the project's benefits and impact, while also raising awareness among the population about the importance of recycling and the fundamental role of waste pickers in the production chain.

Mobilization

Engagement strategies will also include fieldwork with waste pickers through one-on-one conversations and site visits to explain the project and promote registration.

1.4.2. Building partnerships

The general management team will be strategic in seeking financial partnerships, potential investors, and organizations that could support the CSH.

FIGURE 7
Waste reception during Carnival 2024

FIGURE 8
Circularity Support Hub floorplan

2. IMPLEMENTATION

2.1. Infrastructure

One of the project's main pillars is to provide a facility with appropriate equipment and resources that promotes better working conditions for waste pickers and provides access to social services, technical training and a point of sale for collected material.

2.1.1. Construction and facilities

A site, preferably a plot of land or vacant building owned by Salvador City Hall, must be identified for the implementation of the facility that will be built or adapted to provide the areas needed for the planned activities.

2.2. Selecting the recycling cooperatives

Recycling cooperatives will be selected in accordance with criteria established by the governance council:

2.2.1. Call for bids: public notice

Announce a call for bids for cooperatives, in a process managed by the CSH's general management team. A webinar will also provide a detailed explanation of the application process.

2.2.2. Engaging the cooperatives for applications

The process for mobilizing cooperatives will take place both in-person and digitally.

2.2.3. Signing partner agreements

The CSH involves various stakeholders. It is therefore essential to reach agreements with and secure commitments from all parties to ensure that the installations are fully functional.

2.3. Supplies

2.3.1. Tenders: purchases and leases

The CSH will be equipped with essential services, such as a mains water supply, electricity and internet access. Functional spaces will be available where waste pickers can sell recyclable materials directly.

3. OPERATION

3.1. Engaging waste pickers

Mobilizing self-employed waste pickers around the CSH is an essential stage in the project.

3.1.1. Mapping of local waste pickers

Research will be carried out locally to identify the location of waste pickers in the areas around the CSH site, as well as where waste material is bought and sold.

3.1.2. Engagement and participation of the first users

Many waste pickers have limited access to the internet and social networks. Therefore, 70 percent of mobilization efforts will take place in-person.

3.1.3. Registration

Waste pickers will be registered in person as follows:

1. welcome at the CSH or contact by field workers
2. registration at the CSH by data-collection form completion
3. agreement to the terms of the CSH
4. invitation to training course on waste material sales.

Registration form

A specialized waste picker registration methodology will be developed to ensure efficient management processes and personalized assistance.

3.2. Empowering waste pickers and strengthening the recycling value chain

One of the CSH's operational pillars will be the fair and transparent purchase of recyclable materials from waste pickers by the recycling cooperative managing the CSH.

3.2.1. Training course for participating cooperatives

The selected cooperative will attend training to optimize their sales processes and management of recyclable materials.

3.2.2. Professional training course

Training will be provided to cooperative members and self-employed waste pickers on various recycling-related topics.

3.2.3. Standardization of material values

Through research into prices with at least 10 buyers, including industry representatives and intermediaries, an average price will be calculated.

3.2.4. Distribution of personal protective equipment for waste pickers

Personal protection equipment will be offered to each waste picker who wishes to sell materials to the affiliated cooperative.

3.2.5. Increasing plastic recovery

Weekly and monthly targets will be set, with target-based bonus programs to increase plastic collection.

3.3. Sales to industry

3.3.1. Identifying priority industries

Recycling industry partners located in Bahia and nearby regions will be identified, considering not only their regional operations but also their logistics, payment and purchasing policies.

3.3.2. Commercial cooperation agreements among industries and cooperatives

An agreement will be drawn up between industry partners and the participating cooperative, seeking to guarantee better prices and payment terms that meet the cooperative's needs, while also promoting greater reliability and predictability of supplies.

3.4. Access to social services

3.4.1. Orientation

Orientation will be provided to help waste pickers identify the benefits they wish to access and to confirm their needs for referrals.

3.4.2. Specialist center referrals

Referrals for necessary and available services in the CSH's roster of benefits will be made available.

3.5. Data management

3.5.1. Monitoring the trajectories of waste pickers

The data collected during the registration process, in addition to other data generated throughout the program, will be continuously monitored.

3.5.2. Socio-environmental impact report

All the analyzed and monitored data will be reported internally to develop actions that aim to improve the selected indicators, both publicly and digitally.

FIGURE 9
Personal assistance for waste pickers during Carnival 2024

FIGURE 10
Sorting material, Carnival 2024

FIGURE 11
Waste picker's monitoring card

TABLE 3 WORK PLAN

	Implementation components	Y1/Q1	1/2	1/3	1/4	2/1	2/2	2/3	2/4	3/1	3/2
1	**PLANNING AND MOBILIZING**										
1.1	Governance council										
1.2	Infrastructure project										
1.3	Mobilization										
1.4	Communications and Partnerships										
2	**IMPLEMENTATION**										
2.1	Infrastructure										
2.2	Recycling cooperative selection										
2.3	Supplies										
3	**OPERATION**										
3.1	Waste picker engagement										
3.2	Waste picker and recycling value-chain empowerment										
3.3	Sales to industry										
3.4	Access to social services										
3.5	Data management										

TABLE 4 BUDGET

Items	Implementation Components	Duration	Quantity	Cost (BRL)	Cost (USD)
1	**PLANNING AND MOBILIZATION | 6 months**			**300,720**	**50,151**
1.1	**Governance council**			**76,200**	**12,708**
	General management team	6	1	76,200	12,708
1.2	**Infrastructure project**			**141,720**	**23,635**
	Technical visits	6	1	4,920	821
	Architect	6	1	49,200	8,205
	Engineer	6	1	60,000	10,006
	Supply team	6	1	27,600	4,603
1.3	**Mobilization**			**55,200**	**9,206**
	Mobilization team	6	1	27,600	4,603
	Logistical team	6	1	27,600	4,603
1.4	**Communications and Partnerships**			**27,600**	**4,603**
	Communication team	6	1	27,600	4,603
2	**IMPLEMENTATION | 10 months**			**805,000**	**134,249**
2.1	**Infrastructure**			**507,400**	**84,619**
	Contractor and supplies	8	1	440,000	73,378
	Equipment (digital scales, 200 kg press, elevated conveyor belt, big-bags)	1	4	25,600	4,269
	Furniture	1	50	5,000	834
	Material design and communication structures	8	1	36,800	6,137
2.2	**Selecting cooperatives**			**260,800**	**43,493**
	Communication team	8	1	36,800	6,137
	Mobilization team	8	2	73,600	12,274

	Logistical team	8	2	73,600	12,274
	Technical advisory team for cooperatives	8	2	73,600	12,274
	Removal teams	8	8	3,200	534
2.3	**Supplies**			**36,800**	**6,137**
	Supply teams	8	1	36,800	6,137
3	**OPERATION | 14 months**			**1,531,712**	**255,442**
3.1	**Waste-picker engagement**			**390,712**	**65,159**
	Communication team	14	1	64,400	10,740
	Designer	14	1	64,400	10,740
	Communication materials	14	3	4,200	700
	Mobilization team	14	3	193,200	32,220
	Removals	14	8	112	19
	Supply team	14	1	64,400	10,740
3.2	**Waste picker and recycling value-chain empowerment**			**575,400**	**95,959**
	Professional training	14	8	112,000	18,678
	Technical advisory team for cooperatives	14	3	193,200	32,220
	Personal protective equipment	14	100	35,000	5,837
	Logistical team	14	3	193,200	32,220
	Equipment maintenance	14	1	42,000	7,004
3.3	**Sales to industry**			**77,000**	**12,841**
	Commercial sales consultation	14	1	77,000	12,841
3.4	**Access to social Services**			**372,400**	**62,105**
	Social services team	14	2	78,400	13,075
	CSH technical team	14	3	117,600	19,612
	Meals	14	630	176,400	29,418

3.5	**Data management**			**116,200**	**19,379**
	CSH coordination	14	1	102,200	17,044
	Data system	14	1	14,000	2,335
	TOTAL			**2,637,432**	**439,842**

Note: The conversion rate is $1 USD = $5.94 BRL, accurate as at March 1st, 2025.

7. Expected Impact

The project directly addresses Salvador's needs by enhancing the visibility of the circular economy and increasing the access of informal waste pickers, a particularly vulnerable sector, to services and economic opportunities. These activities are consolidated through the creation of a comprehensive support network for waste pickers, providing infrastructure, training, governance, and access to fairer markets. By fostering a structured and supportive environment, the solution accelerates the reintegration of waste pickers into the formal economic cycle, promoting social and economic inclusion in a sustainable and efficient manner.

By empowering these waste pickers, the Circularity Support Hub will serve as a model to strengthen the recycling sector in Salvador, contributing to reduced pollution and plastic leakage. Ultimately, this will support a more circular and less resource intensive production cycle, reducing carbon emissions while protecting water bodies and the natural environment.

The project is designed with holistic vision targeting social, environmental, and economic impacts. These impacts are aligned with the UN's SDGs, a collection of 17 interlinked global objectives established by the United Nations in 2015 to address social, economic, and environmental challenges.recyclable from non-recyclable waste,

SOCIAL IMPACT

By strengthening and training cooperatives, the project aims to improve the quality of life for waste pickers, promoting robust social inclusion, formalizing waste pickers' activities and guaranteeing them basic social rights, thereby reducing their vulnerability and increasing their dignity and recognition.

SDG 10: Reduce inequality within and among countries

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

SDG 3: Ensure healthy lives and promote well-being for all at all ages

SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

ENVIRONMENTAL IMPACT

By working alongside cooperatives to collect larger volumes of recyclable materials, this initiative will strengthen the circular economy, reducing the amount of waste being sent to landfills and preventing the entry of plastic waste into the environment. The circular economy will promote the reuse and recycling of materials, helping to reduce the consumption of natural resources. Efficient collection and recycling will reduce pollution, diminish the amount of waste piling up on the roads and in inappropriate places, which in turn will mitigate public health risks.

SDG 12: Ensure sustainable consumption and production patterns

SDG 13: Take urgent action to combat climate change and its impacts

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

SDG 6: Ensure availability and sustainable management of water and sanitation for all

ECONOMIC IMPACT

From an economic perspective, the Circularity Support Hub will increase the waste pickers' average income by formalizing their activities and creating a network of contacts that will allow them to sell products at fair prices. The structure and operation of the facility will also create direct and indirect jobs, strengthening the local economy. Cooperatives, in turn, will benefit from improved working conditions and market opportunities, enhancing their capacity, operational reach, and economic sustainability. The implementation of an efficient waste management system will make the sector more attractive for public and private investment, driving economic growth of the sector as well as the region.

SDG 1: End poverty in all its forms everywhere

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8. Monitoring and Assessing the Project

The management system that will be used to evaluate the success of the Circularity Support Hub (CSH) project will be based on a comprehensive model of continuous assessment and monitoring. The following outcome indicators are tentative:

Outcome indicators

- Number of registered self-employed waste pickers
- Percentage increase in the income of waste pickers and cooperatives
- Satisfaction rate among waste pickers and cooperatives
- Number of waste pickers who access basic social services through the CSH
- Number of cooperatives approved and operating in accordance with established standards
- Percentage increase in the volume of recyclables processed by cooperatives and sent for industrial use
- Number of waste pickers formally registered and with regulated contracts
- Number of training courses held
- Number of trained waste pickers and cooperatives
- Number of associations and partnerships created with organizations and companies
- Price Variation Index for the buying and selling of recyclable materials
- Number of partnerships with companies and government departments/bodies to improve social determinants of health

Ways of Working

Monthly Alignment Meetings with the Cooperative

Monthly alignment meetings will be held between the general management team and the cooperative operating at CSH to monitor and track key indicators and goals, provide feedback, and implement necessary adjustments to improve operations. The cooperative will play a central role in developing progress reports.

Monthly Reports and Management Council Meetings

The governing council will hold quarterly meetings to review progress reports. These reports will be based on success indicators and will provide a detailed overview of the project's performance.

Digital Monitoring Tools

A digital monitoring system will be implemented to record and analyze all data related to daily operations, worker registration, pricing, and services. This system will enable the automatic generation of reports and real-time identification of trends and challenges.

Feedback and Adjustments

The management system will include mechanisms for continuous feedback collection from waste pickers, cooperatives, and other stakeholders. Based on this feedback and monitored results, strategic and operational adjustments will be made to ensure the project's effectiveness and achievement of objectives.

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