

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BRAZIL**

**URBAN RESILIENCE AND REVITALIZATION PROGRAM IN SOCIALLY AND  
ENVIRONMENTALLY VULNERABLE AREAS - ProMORAR RECIFE**

**(BR-L1609)**

**LOAN PROPOSAL**

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## ABBREVIATIONS

BIM	Building Information Modeling
CIS	Comunidades de Interesse Social [Social Interest Communities]
COMPESA	Companhia Pernambucana de Saneamento [Pernambuco sanitation company]
CRF	Corporate Results Framework
DALY	Disability-adjusted life years
EMLURB	Empresa de Manutenção e Limpeza Urbana do Recife [Recife Urban Sanitation and Maintenance company]
IBGE	Instituto Brasileiro de Geografia e Estatística [Brazilian Geography and Statistics Institute]
ICB	International competitive bidding
LGBTQI+	Lesbian, gay, bisexual, transgender, queer, intersex, and other minority gender identities and sexualities
PLHIS	Plano Local de Habitação de Interesse Social [Local Affordable Housing Plan]
PMR	Progress monitoring report
PMU	ProMorar Recife Program Management Unit
PNAD	Pesquisa Nacional por Amostra de Domicílios [National Household Sample Survey]
SNIS	Sistema Nacional de Informações sobre Saneamento [National Sanitation Information System]
SOFIN	Sistema Orçamentário Financeiro [Financial Budgeting System]
URB	Empresa de Urbanização do Recife [Recife Urban Development Authority]
ZEIS	Zonas Especiais de Interesse Social [Special Zones of Social Interest]

## PROJECT SUMMARY

### BRAZIL

## URBAN RESILIENCE AND REVITALIZATION PROGRAM IN SOCIALLY AND ENVIRONMENTALLY VULNERABLE AREAS - PROMORAR RECIFE (BR-L1609)

Financial Terms and Conditions				
Borrower:			Flexible Financing Facility <sup>(a)</sup>	
Município of Recife			Amortization period:	23.5 years
Guarantor:			Disbursement period:	6 years
Federative Republic of Brazil			Grace period:	7 years <sup>(b)</sup>
Executing agency:			Interest rate:	SOFR-based
Município of Recife, through the ProMorar Recife Program Management Unit			Credit fee:	<sup>(c)</sup>
			Inspection and supervision fee:	<sup>(c)</sup>
Source	Amount (US\$)	%	Weighted average life:	15.25 years (maximum)
IDB (Ordinary Capital):	260 million	80	Approval currency:	U.S. dollar
Local:	65 million	20		
Total:	325 million	100		
Project at a Glance				
<b>Project objective/description:</b> The general objective of the program is to help improve living conditions for residents of the most socially and environmentally vulnerable areas of the city of Recife. The specific objectives are to: (i) increase access to urban and social infrastructure, facilities, and services and to productive programs; (ii) reduce flood and landslide risks, taking into account climate adaptation and resilience criteria; and (iii) increase the Recife municipal government's capacity for managing urban and housing development and environmental and climate risks.				
<b>Contractual conditions precedent to the first disbursement:</b> The executing agency will submit to the Bank evidence of the: (i) approval and entry into force of the program Operating Regulations, in the terms previously agreed upon with the Bank; and (ii) creation of the ProMorar Recife Program Management Unit and appointment of the program general coordinator (paragraph 3.8).				
<b>Special contractual conditions for execution:</b> (i) Before the issuance of the first service order for the program's water and sanitary sewer projects, the borrower will submit to the Bank evidence of the signing and entry into force of a cooperation agreement between the borrower and the Pernambuco sanitation company (COMPESA) establishing both parties' responsibilities in preparing, executing, operating, and maintaining the respective works, pursuant to the terms previously agreed upon with the Bank; (ii) before the issuance of service orders for execution of each stage of the program works, the borrower will submit to the Bank evidence that it legally owns the property where the work will be done, and that it has the easements and other rights and/or authorizations necessary for construction and use; (iii) before the issuance of the first service order for the integrated urban development or macrodrainage project works, the borrower will submit to the Bank evidence that a firm has been hired to provide program management support; (iv) before the launch of execution of each program work, the borrower will submit evidence that a firm has been hired for the technical and environmental supervision thereof, or, alternatively, that a qualified municipal team is in place for such purpose; and (v) the borrower will start program works within four years after the signing of the loan contract, except in the case of the slope containment works under Component 2 and the residential unit improvements under Component 1, which may be started within five-and-a-half years of that date (paragraph 3.9). Additional special contractual conditions for disbursement and execution can be found in the environmental and social action plan and in Annex B of the environmental and social review summary.				
<b>Exceptions to Bank policies:</b> None.				
Strategic Alignment				
Challenges: <sup>(d)</sup>	SI <input checked="" type="checkbox"/>		PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>
Crosscutting themes: <sup>(e)</sup>	GE <input checked="" type="checkbox"/> and DI <input checked="" type="checkbox"/>		CC <input checked="" type="checkbox"/> and ES <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>

<sup>(a)</sup> Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency, interest rate, commodity, and catastrophe protection conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

<sup>(c)</sup> The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.

<sup>(d)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(e)</sup> GE (Gender Equality) and DI (Diversity); CC (Climate Change) and ES (Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and rationale

- 1.1 **Background.** With an estimated population of 1,661,017 residents in 2021, the city of Recife is the ninth most populated state capital in Brazil and the third most populated city in the Northeast region,<sup>1</sup> despite being one of the country's smallest cities in terms of surface area (218.4 square kilometers). Its Human Development Index is 0.77, placing it 210th out of Brazil's 5,568 municípios. On the Sustainable Cities Development Index for Brazil, which assigns a score indicating the likelihood of achievement of the Sustainable Development Goals, Recife received a score of 54.6 out of 100 points, coming in at 378th out of the 770 cities analyzed. It is also the most unequal state capital, with a Gini coefficient of 0.69, compared to 0.49 for the country as a whole.
- 1.2 Recife's territory, which is considered urban in its entirety, is divided into six political and administrative regions made up of 94 neighborhoods. In 67 of them, income is lower than the Recife município average (R\$983.86),<sup>2</sup> and all or part of the neighborhood is home to Social Interest Communities (CIS), which are relatively homogenous areas that are inhabited by low-income families and that have pronounced gaps in infrastructure and urban services as well as high rates of housing insecurity.<sup>3</sup> According to Recife's Atlas of Infrastructure and CIS, over 20% of Recife's total surface area and nearly 30% of its developed area consist of vulnerable zones. Over 50% of the city's population lives in the 545 CIS located in these zones.
- 1.3 **Urban sprawl and inadequate housing.** Due to Recife's rapid population growth, a lack of effective urban management tools, and the scant supply of affordable housing for low-income residents, the urban development process has been largely disorganized and unregulated.<sup>4</sup> This is exacerbated by the city's geographical features (67.43% is on a hillside, 9.31% is along the banks of a waterway, and 5.58% falls within special environmental protection areas).<sup>5</sup> As a result, delivery of basic services, for example, proves challenging and falls short. According to the National Sanitation Information System (SNIS) 2021,<sup>6</sup> 56% of housing units in the city do not have access to sanitary sewer services, and 10.6% do not have access to water.
- 1.4 The existing system for urban drainage<sup>7</sup> (at the micro and macro levels) is inadequate and overloaded due to unregulated settlements along river banks, excess sedimentation due to a lack of maintenance, and the improper disposal of

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<sup>1</sup> Brazilian Geography and Statistics Institute (IBGE).

<sup>2</sup> 2010 Census, IBGE.

<sup>3</sup> The concept of the CIS was developed by the Recife municipal government in 2014 as part of Recife's Atlas of the Infrastructure and CIS to demarcate areas with the largest gaps and the greatest need for attention.

<sup>4</sup> Nogueira, 2019.

<sup>5</sup> [Caracterização do território](#) – Municipal Government of Recife.

<sup>6</sup> [Diagnósticos SNIS 2021/2022 – Informações e indicadores](#), COMPESA.

<sup>7</sup> Guided by the *Plano Diretor de Drenagem e Manejo de Águas Pluvias* [Rainwater Management and Drainage Master Plan] (2015).

solid waste in waterways. As a result, according to the SNIS 2020, over 51,000 households are at risk of flooding in the rainy season.<sup>8</sup> That figure was exceeded in 2022, when almost 53,000 households were hit by flooding. In addition, official data<sup>9</sup> indicate that the coverage of social services in CIS is considerably lower than in the rest of the city. For example, while 72% of residents of the city's established downtown neighborhoods have health service coverage, only 47% of CIS residents do.<sup>10</sup>

- 1.5 According to the Local Affordable Housing Plan (PLHIS), Recife had a housing deficit of approximately 71,160 homes (17.6% of the município total) in 2017, and that figure was on the rise.<sup>11</sup> Meanwhile, the qualitative housing deficit stood at 127,868 units or 31.6% of the total number of housing units (meaning they lack infrastructure and basic utilities like water and sewers or have substandard floors and/or roofs). In addition, 57,329 housing units have land titles with irregularities, 13,198 are overcrowded, 52,408 are located in flood-prone areas, and 7,640 face a high risk of landslides.<sup>12</sup> The habitability<sup>13</sup> of existing housing units clearly needs to be improved by ensuring that they are served by basic utilities and implementing quality upgrades to reduce their exposure to climate threats and hazards. The city also needs a supply of new housing that is affordable for the low-income population so it can prevent the creation of new informal settlements. Therefore, despite the city's vast experience with such issues,<sup>14</sup> its urban management tools need to be updated, and complementary ones created, to contend with increasing urban demand and emerging climate conditions.
- 1.6 **High vulnerability to climate threats.** According to the Intergovernmental Panel on Climate Change, Recife is the Brazilian capital that is most threatened by sea level rise, and the 16th most threatened city in the world. The city's geography and settlement patterns have exacerbated this problem,<sup>15</sup> since large segments of the population (currently an estimated 206,000 people)<sup>16</sup> have settled in areas

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<sup>8</sup> Source: Official data from the Municipal Government of Recife.

<sup>9</sup> Idem.

<sup>10</sup> Information from Recife's municipal health, education, and social development departments.

<sup>11</sup> [PLHIS do Recife – Estratégias do AÇÃO, approved in 2021, p. 52.](#)

<sup>12</sup> *PLHIS do Recife* approved in 2021.

<sup>13</sup> This includes: (i) access to basic utilities (water, sewers, and electricity); and (ii) location in safe areas without flood and landslide risks.

<sup>14</sup> Historically, Recife has led the way in the creation of Special Zones of Social Interest (ZEIS), areas mostly inhabited by the poor for which special regulations are created to facilitate their formalization (urban regularization). Between 2001 and 2016, the Município also created such housing programs as the *Programa Recife Sem Palafitas* [Recife without Stilt Dwellers], the Solidarity Credit Program, the ZEIS Rehabilitation Program, the Habitar Brasil Program (HBB) with the IDB, and the Affordable Housing Subsidy Program (PSH). [PLHIS do Recife – Diagnostic assessment of the housing sector](#), approved in 2021, p. 99.

<sup>15</sup> Recife is located on a large plain (at 0 to 10 meters above sea level) crossed by a hilly geographic formation (called "morros") with peaks that vary from 40 to 110 meters in height. It is also crossed by five rivers whose water levels vary. The vast majority of the city's informal settlements were established in areas not apt for habitation (on riverbanks or hillside slopes). For more information, see [optional link 4](#).

<sup>16</sup> [IBGE](#). Around 11% of Recife's population resides in the coastal area, according to *Análise de riscos e vulnerabilidades climáticas e estratégia de adaptação do município do Recife. Resumo para tomadores de decisão*. CAF, WayCarbon, and Local Governments for Sustainability (ICLEI) (2019).

- exposed to periodic flooding or landslides. Floods regularly affect the residents of unregulated settlements along the waterfront and in flood-prone areas near the three rivers targeted by this program (the Tejipió, Jiquiá, and Moxotó). Furthermore, informal settlements have been established on many of the hillsides classified by the Civil Defense Corps as high or very high risk.
- 1.7 One unfortunate display of the city's lack of resilience took place in May 2022, when the Município declared a state of emergency due to the heavy rains affecting the city. According to the Pernambuco Water and Climate Agency, as much as 686 mm of rain fell, much more than the prior average of 329 mm. From 24 May to 30 May 2022, intense rains caused landslides that killed 55 people, as well as floods in much of the city, leaving 4,000 of the city's residents homeless and 800 displaced, and damaging 1,500 properties. Those who were hit hardest were CIS residents, as those areas experienced the worst flooding and landslides and reported the most fatalities.<sup>17</sup>
- 1.8 These risks will likely persist and be exacerbated by the effects of climate change. In addition to the expected rise in sea levels,<sup>18</sup> climate change will exacerbate extreme weather, with more intense and more frequent flooding provoked by the increase in rainfall, the fact that rivers will not be able to discharge into the sea, and the increase in landslides brought on by soil saturation from the higher levels of precipitation. As a result, if no action is taken, the number of people affected by disasters will likely double.<sup>19</sup> Rechanneling the rivers, controlling their floodplains, improving drainage, and stabilizing hillsides are all considered high priorities to mitigate risks. In high-risk areas, resettlement will be necessary. See the analysis and recommendations for tracking climate finance ([optional link 6](#)).
- 1.9 **Gender- and diversity-based inequalities.** Women in Recife experience greater economic, social, and climate-related challenges and disparities than men do. Recent data demonstrate that women are less likely to feel safe in both public and private spaces (19.5% and 17.2%, respectively).<sup>20</sup> With regard to employment, around 55% of jobs are held by men and 45% by women.<sup>21</sup> Studies performed in 2017<sup>22</sup> found that in 86.7% of households surveyed, women were responsible for hauling water for domestic use, spending an average of two hours a day on this task.<sup>23</sup> With regard to natural disasters, according to the Civil Defense Corps, 31.6% of women-led households live in vulnerable areas, and it follows that most

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<sup>17</sup> Data from the Municipal Government of Recife.

<sup>18</sup> The optimistic scenario modeled by Costa et al. (2010) indicates that a 0.5-meter sea level rise would potentially flood 25.38 square kilometers of Recife's coastal areas.

<sup>19</sup> [Análise de riscos e vulnerabilidades climáticas e estratégia de adaptação do município do Recife](#). (pp. 22 and 23) *Resumo para tomadores de decisão*. CAF, WayCarbon, and ICLEI (2019).

<sup>20</sup> De Sá Santos, L. 2021. *Vitimização do crime e sentimento de insegurança: evidências para o Brasil*. Pernambuco Federal University.

<sup>21</sup> Data from the *Relação Anual de Informação Social* and *Cadastro Geral de Empregados e Desempregados*, on the Recife labor market, from 2018 to 2021.

<sup>22</sup> Nogueira, Daniela (2017), "Segurança hídrica, adaptação e gênero: o caso das cisternas para captação de água de chuva no semiárido brasileiro," in *Sustentabilidade em Debate* 8:3, Brasília.

<sup>23</sup> Jalil, L (Rural Federal University of Pernambuco) and R. Neves (Brazil Semi-arid Organization). 2000. *El programa Un Millón de Cisternas: Nuevos enfoques y desafíos para la región semiárida brasileña*.



victims of climate disasters are women. All told, 55% of the victims of the June 2022 climate event were women.<sup>24</sup> See [optional link 7](#).

- 1.10 Afro-descendants, persons with disabilities, and lesbian, gay, bisexual, transgender, queer, or intersex (LGBTQI+) persons contend with economic, social, and inclusion challenges in Recife. Data from the National Household Sample Survey (PNAD) show that the rate of labor market participation for Afro-descendant women dropped from 56% in 2020 to 47% in 2021 and that, in CIS, this demographic has the highest rate of informal or domestic work.<sup>25</sup> LGBTQI+ persons also face barriers in the labor market and are targets of violence due to their sexual orientation. Between 2015 and 2017, 24,564 cases of violence against LGBTQI+ persons were reported (almost one complaint/hour).<sup>26</sup> Lastly, despite the fact that 28% of Recife's residents have some kind of disability, only 4.6% of housing units have ramps. Furthermore, the city has only one inclusive playground, which points to the need to expand infrastructure for children with disabilities<sup>27</sup> ([optional link 7](#)).
- 1.11 **Institutional weaknesses.** The institutional problems that have contributed to unregulated urban growth notably include outdated internal management systems and a lack of integrated planning tools. Urban, socioenvironmental, and housing data are currently scattered across several databases with practically no digital interface. The Municipal Housing Plan is obsolete, and the corresponding databases (like the registry of families that need housing and data on the availability of urban properties) are inadequate or nonexistent. Furthermore, despite Recife's high natural disaster risk,<sup>28</sup> the municipal government does not have tools for disaster risk management planning<sup>29</sup> or for managing residual risk as recommended by international best practices.<sup>30</sup> That said, both the Recife Urban Sanitation and Maintenance company (EMLURB) and the Recife Urban Development Authority (URB) do have the staff and budgetary allocations to operate and maintain the infrastructure under their care.<sup>31</sup>
- 1.12 Effective urban management requires data generated by several municipal government offices, and that data is also scattered and difficult to access due to a lack of coordination across the relevant sector offices as well as a lack of modern

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<sup>24</sup> CBN Recife. 2022. [Mulheres e suburbanas: o retrato da tragédia das chuvas em Pernambuco](#).

<sup>25</sup> *Estudo da Secretaria Municipal de Desenvolvimento Econômico, Inovação e Simplificação do Rio do Janeiro a partir de dados da PNAD (2020 and 2021)*.

<sup>26</sup> Study by the Oswaldo Cruz Foundation with data from the Unified Health System between 2015 and 2017.

<sup>27</sup> Recife Observatory with IBGE data.

<sup>28</sup> [Análise de Riscos e Vulnerabilidades Climáticas e Estratégia de Adaptação do Município do Recife - PE](#).

<sup>29</sup> [IBGE, Profile of Brazilian Municípios, 2020](#). These tools are: a master plan, land use and settlement act, specific law on the prevention of floods, gradual water rise, sudden downpours, and landslides; a municipal risk reduction plan; a geotechnical map of suitability for urban development; and a plan for implementing works and services to reduce disaster risks ([IBGE, Profile of Brazilian Municípios, 2020](#)).

<sup>30</sup> [Sendai Framework](#), United Nations Office for Disaster Risk Reduction.

<sup>31</sup> For information on COMPESA, see paragraph 1.19. EMLURB's responsibilities include maintenance of drainage infrastructure. In this context, URB is an autonomous entity responsible for slope containment infrastructure.

data integration tools.<sup>32</sup> This impairs the Município's ability to manage urban growth and climate risks. Accordingly, the Município needs effective, modern technological and methodological solutions for integrated data management, like interoperable platforms that help optimize operational and planning capacity, and an urban monitoring and control system that will facilitate the Civil Defense Corps' climate disaster risk management and climate impact mitigation efforts. In particular, sound preventive management of emergencies backed by an early warning system is key to saving lives and preventing economic losses,<sup>33</sup> yet the Civil Defense Corps currently does not have an early warning system, instead conducting some monitoring visually. Moreover, it does not have hydrometers, the rain gauge network is limited, and the lack of sirens in high-risk areas<sup>34</sup> makes it difficult to issue alerts in emergency situations.<sup>35</sup>

- 1.13 **Program approach.** In view of this situation, the main problem to be addressed by this program is the precarious living conditions of residents of the most socially and environmentally vulnerable areas of the city of Recife. These precarious conditions can primarily be attributed to three drivers: (i) substandard infrastructure and urban and social services for housing units located in the city's poorest areas; (ii) these areas' exposure to natural disasters and to the impacts of climate change; and (iii) the municipal government's institutional weaknesses with regard to urban and housing planning and socioenvironmental risk management.
- 1.14 **The Bank's experience in the country.** The program builds upon the capacity developed through other Bank-financed urban development programs in Brazil. For example, the IDB's Habitar Brasil program (loan [1126/OC-BR](#)) sought to address the lack of urban services and housing in precarious urban settlements through integrated urban development projects. This program is also aligned with other operations focused on improving urban and social conditions for vulnerable communities, including the Rio de Janeiro Urban Upgrading Program (Favela Bairro I, loan [898/OC-BR](#), 1995-2001; Favela Bairro II, loan [1241/OC-BR](#), 2000-2006; and Favela Bairro III, loan [2482/OC-BR](#), 2010-2019); the Integrated Sustainable Urban Development Program for the Municipality of João Pessoa (loan [4444/OC-BR](#)), the Urban Upgrade Program in the Western Area of Aracaju (loan [4736/OC-BR](#)), the operations under the Lending Facility for Financing Brazil's Municípios (PROCIDADES) credit line (loans [1960/OC-BR](#); [1961/OC-BR](#); [1986/OC-BR](#); [1990/OC-BR](#); [2054/OC-BR](#); [2121/OC-BR](#); [2246/OC-BR](#); [2320/OC-BR](#); [2752/OC-BR](#); [2751/OC-BR](#); and [2999/OC-BR](#)), and the Social and Environmental Program for the Igarapés in Manaus (PROSAMIN) (loan [2006/OC-BR](#)).
- 1.15 **The Bank's experience in the region.** The Bank's comprehensive neighborhood upgrading programs promote interventions that foster the social and urban integration of households in makeshift urban settlements with the rest of the city, working both at the level of the individual housing units and their surroundings.

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<sup>32</sup> To underpin the diagnostic assessment of the management instrument shortfalls, the Bank is supporting the Município with technical-cooperation operation ATN/CIT-19008-BR.

<sup>33</sup> [Early Warning Systems | United Nations](#).

<sup>34</sup> Data from the Recife Civil Defense Corps provided during the analysis mission.

<sup>35</sup> [IBGE, Profile of Brazilian Municípios, 2020](#).

Some of the precedents in the region include: in Argentina, the Barrio Improvement Program (PROMEBA), Stages I, II, III, IV, and V (operation [AR-X1004](#)), the Urban Integration and Social and Educational Inclusion Program in the Autonomous City of Buenos Aires (loan [4303/OC-AR](#)), the Social and Urban Integration Program in the Province of Buenos Aires (loan [4823/OC-AR](#)), and the Social and Urban Integration Program (loan [4804/OC-AR](#)); in Chile, the Program for the Urban Integration of Informal Settlements (loan [5313/OC-CH](#)); in Paraguay, the Improvement of Housing and Habitat program (loan [3538/OC-PR](#)) and the Housing and Rehabilitation Program for Bañado Sur in Asunción (Tacumbú Neighborhood) (loan [4700/OC-PR](#)); and, in Uruguay, the Neighborhood Improvement Program, Stages I, II, and III (operation [UR-X1003](#)).

- 1.16 **Lessons learned.** The Bank's urban and sanitation operations have yielded important lessons learned, drawn from innovative projects like "Favela-Bairro" Stages I, II, and III; PROSAMIN I and II, and PROCIDADES, notably:<sup>36</sup> (i) it is important to actively involve the various members of the community at all stages (project identification, design, and execution), placing particular emphasis on the participation of women and minority residents; the program incorporates this lesson through the public consultations with each beneficiary CIS and the social work it will carry out with the communities during the design and execution of program activities (see paragraph 1.22); (ii) the problems of disadvantaged communities have to be addressed using a comprehensive approach: programs should not just expand basic utilities and infrastructure but also promote social and productive programs that specifically target the vulnerable groups within those underprivileged communities; these considerations are fully incorporated into Component 1 of the program (see paragraph 1.22); (iii) the complexity of multisector programs means they require execution mechanisms that facilitate decision-making and coordination of the actors involved in execution, including environmental organizations and relevant State and municipal enterprises, to prevent delays and more effectively coordinate implementation of program works; this will be achieved by creating an Advisory Council, which will include the aforementioned agencies and will serve as an effective coordination mechanism (see paragraphs 3.5 and 3.6); and (iv) given the complexity of the works and the fact that the work sites are spread out, technical support for execution should be provided through consulting services specialized in program management and works supervision; such services will be contracted to support the ProMorar Recife Program Management Unit throughout program execution (see paragraph 3.4)
- 1.17 **Strategic alignment.** The operation is consistent with the second Update to the Institutional Strategy (document AB-3190-2) and is aligned with the development challenges of: (i) social inclusion and equality, by improving housing for the low-income population; and (ii) productivity and innovation, by promoting the adoption of modern technological tools for urban planning and risk management. It is also aligned with the crosscutting themes of: (i) gender equality and diversity, by promoting interventions to reduce gender-based violence in public and private spaces; increase the employability of women, Afro-descendants, and LGBTQI+

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<sup>36</sup> These lessons were drawn from such operations as loans [898/OC-BR](#), [1241/OC-BR](#), [2482/OC-BR](#), [2006/OC-BR](#), [1960/OC-BR](#), [1961/OC-BR](#), [1986/OC-BR](#), [1990/OC-BR](#), [2054/OC-BR](#), [2121/OC-BR](#), [2246/OC-BR](#), [2320/OC-BR](#), [2752/OC-BR](#), [2751/OC-BR](#), and [2999/OC-BR](#).

- persons; create inclusive and accessible public spaces (for LGBTQI+ persons and persons with disabilities); and develop a women-focused climate disaster management protocol; (ii) climate change, through its actions to foster the resilience of precarious housing units and urban areas more generally; the resettlement of families who live in flood- and landslide-prone areas; macrodrainage, slope containment, and floodplain linear park projects to mitigate flooding and landslide risks; and the mainstreaming of adaptation and mitigation considerations in tools for urban and housing planning and innovation programs; (iii) environmental sustainability, by improving climate resilience and reducing the city's vulnerability to natural disasters exacerbated by climate change, and by including basic sanitation measures to improve the quality of hydric effluents and promoting nature-based solutions that contribute to the resilience and quality of the urban environment. According to the [joint methodology of the multilateral development banks for tracking climate finance](#), 92.77% of the operation's resources are invested in climate change adaptation and mitigation activities, through actions designed to promote the resilience of precarious housing units and urban areas more generally, the resettlement of families living in flood- or landslide-prone areas, etc., thereby contributing to the IDB's climate finance target; and (iv) institutional capacity and rule of law, by strengthening the city's capacity for planning and managing natural disasters and urban risks.
- 1.18 The operation also contributes to the Corporate Results Framework 2020-2023 (document GN-2727-12) through indicators 2.4, 2.5, 2.7, 2.16, 2.19, 2.20, and 2.26. Furthermore, it will contribute to the IDB Group Country Strategy with Brazil 2019-2022 (document GN-2973), specifically to the strategic area of reducing social inequality and inequality of opportunity by enhancing public policy efficiency, and its strategic objectives of building a more effective government, by strengthening the Municipal Government of Recife, and implementing efficient policies to increase access to housing. The operation also aligns with the aforementioned crosscutting issues of gender and climate change. It is consistent with the Gender and Diversity Sector Framework Document (document GN-2800-8), insofar as it includes interventions to promote the inclusion and empowerment of women, Afro-descendants, persons with disabilities, and LGBTQI+ persons; and with the Climate Change Sector Framework Document (document GN-2835-8), through the installation of resilient infrastructure and sustainable urban development. It aligns with the Update to the Gender Action Plan for Operations 2020-2021 (document GN-2531-19) and the Diversity Action Plan for Operations 2019-2021 (document GN-2531-17), to the extent that it addresses the specific needs of women and diverse groups. Lastly, the program aligns with the Housing and Urban Development Sector Framework Document (document GN-2732-11) by upgrading informal settlements; increasing the number of safe public spaces; and promoting access to decent housing, resilience to natural disasters and climate change, and effective urban governance.
- 1.19 **Complementarity with other Bank operations.** The program complements two other Bank operations, namely: (i) the Program to Promote Fiscal Sustainability and Enhance the Effectiveness of Public Expenditure in the Município of Recife (loan [5636/OC-BR](#)), which strengthens the Município's fiscal capacity, enabling it to generate more financial resources for its investments, including ones that

complement this program;<sup>37,38</sup> and (ii) the ProMorar Conditional Credit Line for Investment Projects ([in preparation](#)),<sup>39</sup> a country-wide program administered by the Federal Housing Department, which financed studies and analyses for the development of innovative tools that will be used in this program to generate affordable housing solutions for low-income groups.

- 1.20 **Compliance with the Public Utilities Policy (document GN-2716-6).** The proposed project and national sector objectives are consistent with the principles of the Public Utilities Policy (document GN-2716-6) and satisfy its financial sustainability and economic evaluation criteria. The Pernambuco sanitation company (COMPESA), the public enterprise that will operate and maintain the program-financed water and sanitation infrastructure, has a sound financial position that has allowed it to cover its operating and management costs with the fees it charges. Moreover, the works to be financed by the project are socioeconomically viable. COMPESA offers reduced rates to low-income households and has a robust institutional framework, with appropriate separation of duties and responsibilities ([optional link 8](#)).

## **B. Objectives, components, and cost**

- 1.21 The general objective of the program is to help improve living conditions for residents of the most socially and environmentally vulnerable areas of the city of Recife. The specific development objectives are to: (i) increase access to urban and social infrastructure, facilities, and services and to productive programs; (ii) reduce flood and landslide risks, taking into account climate adaptation and resilience criteria; and (iii) increase the Recife municipal government's capacity for managing urban and housing development and environmental and climate risks. The project is structured into the following components:
- 1.22 **Component 1. Integrated urban development (IDB: US\$107 million; local counterpart: US\$44.36 million).** This component consists of activities designed to enable fulfillment of specific development objective (i). To that end, it will finance integrated interventions in priority CIS, implementing such measures as: (i) basic infrastructure (including water and sewer networks, public roads, and drainage) and urban facilities (including parks and recreation areas); (ii) land tenure regularization; (iii) improvements to existing housing units with a focus on resilience; (iv) social services and facilities (including community and day care centers);<sup>40</sup> (v) socioproductive activities and programs geared to women and diverse groups;<sup>41</sup> (vi) resettlement of the families associated with all program works

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<sup>37</sup> Approved by the Bank's Board of Executive Directors on 2 November 2022.

<sup>38</sup> Studies performed and validated by the National Treasury Department indicate that the program does not pose any conflict with this operation in terms of the Município of Recife's fiscal headroom, clearing the way for approval of both operations.

<sup>39</sup> Expected to be approved by the Bank's Board of Executive Directors in January 2023. The borrower will be the Federative Republic of Brazil.

<sup>40</sup> Some of these social facilities may be located outside the target CIS, since they serve the population of a larger area.

<sup>41</sup> The component will finance the participatory diagnostic assessments with women and LGBTQI+ persons, urban visual and artistic projects, public spaces/inclusive parks for children with disabilities, and the personalization of the app *Meu Andar é Livre*.



projects, and (vii) purchase and expropriation of lands<sup>42</sup> to build the housing and public facilities necessary to achieve the program objectives. To support execution of these activities, the operation will finance consulting services for preparation of technical studies, detailed designs, and other documents and for supervision of the integrated project works. The community will participate in the component activities as appropriate based on the program operating documents, keeping in mind such considerations as the economic empowerment of women, the inclusion of diverse populations (e.g., LGBTQI+, persons with disabilities, and Afro-descendants), and the adoption of solutions that foster resilience to climate change ([optional link 3](#)).

- 1.23 To identify eligible CIS for the program, the following criteria were considered: (i) the projects' technical viability, with regard to the possibility of connecting to the existing sewer network or the network that will be set up during program execution; and (ii) geographic considerations, given the advantages of working with neighboring CIS.<sup>43</sup> Based on these criteria, 72 CIS were deemed eligible, and component funds will be sufficient to cover 39. Prioritization of CIS for execution will fundamentally depend on the viability of connecting the community to the city's primary sanitation system. The program [Operating Regulations](#) include all the technical criteria for eligibility as well as a list of the priority CIS.
- 1.24 **Component 2. Resilient infrastructure (IDB: US\$130 million; local counterpart: US\$18.49 million).** This component consists of activities designed to enable fulfillment of specific development objective (ii). To that end, it will finance projects to reconfigure areas along the Tejipió, Jiquiá, and Moxotó Rivers as planned in the Município's Master Urban Drainage Plan and recent municipal government studies. More specifically, the component will finance interventions including: (i) macrodrainage works on the aforementioned rivers; (ii) construction of linear parks, which will act as buffer zones during floods, bike paths, and other measures to protect these areas and deter new informal settlements;<sup>44</sup> and: (iii) ad hoc slope containment and drainage works in high and very high risk areas.<sup>45</sup> Wherever possible, these ad hoc interventions will include the establishment of recreational areas to ensure socioenvironmental sustainability. The component will finance technical studies, project designs, and execution and supervision of the works, which will incorporate solutions to promote urban resilience. All projects designed and executed under this operation will follow the Disaster and Climate Change Risk Assessment Methodology for IDB Projects as due diligence. Project designs will factor in climate forecasts to identify prevention and mitigation measures for the respective risks ([optional link 4](#)).

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<sup>42</sup> Funding for land acquisitions, including transfers for no valuable consideration involving the federal government or State government, will be subject to the eligibility criteria set out in the program Operating Regulations in accordance with Bank policies and will require the Bank's no objection.

<sup>43</sup> Groups were formed of CIS located up to one kilometer away from each other.

<sup>44</sup> The resettlement of at-risk families in the areas of influence of these rivers is included under Component 1.

<sup>45</sup> The Civil Defense Corps of the City of Recife classifies risk into four levels, with levels 3 and 4 being the high- and very high-risk categories, respectively.

- 1.25 To identify projects eligible for the program, the following criteria were considered: (i) macrodrainage projects located in the Tejipló, Jiquiá, and Moxotó River basins; and (ii) slope containment projects located in socioenvironmentally vulnerable areas that are classified as high or very high risk. The program Operating Regulations discuss all technical eligibility criteria for this component.
- 1.26 **Component 3. Modernization of urban and housing management (IDB: US\$9.3 million; local counterpart: US\$2.1 million).** This component consists of activities designed to enable fulfillment of specific development objective (iii). To that end, it will finance two sets of actions. The first involves strengthening tools for urban and housing planning, including the: (i) development and launch of an integrated management system for urban, housing, and socioenvironmental data; (ii) implementation of the Building Information Modeling (BIM) methodology,<sup>46</sup> including training for public employees in its use; (iii) updating of the PLHIS;<sup>47</sup> (iv) structuring of a municipal urban risk monitoring and management system; (v) design and launch of an urban planning system; and (vi) trainings on climate risk management for women community leaders. The second set of actions focuses on the development of innovative housing programs and the piloting thereof. This could include: (i) a housing subsidy program for low-income families; (ii) a program for the homeless; and (iii) a program to modernize the social management of housing complexes<sup>48</sup> ([optional link 5](#)).
- 1.27 **Program administration (IDB: US\$13.17 million).** This will cover the costs of program administration and evaluation, including: (i) the equipment required for ProMorar Recife Program Management Unit (PMU) operations;<sup>49</sup> (ii) specialized consulting services to support program management; (iii) specialized consulting services for program works supervision; (iv) specialized consulting services for program outreach and promotion; and (v) evaluation and auditing costs. The program provides for midterm and final evaluations, which will include ex post impact assessments and economic analysis.
- 1.28 The project team analyzed a representative sample of projects (equivalent to 37.4% of all program investments) to establish the program's technical, economic, and socioenvironmental viability.<sup>50</sup> The projects selected for review as part of the sample met the following criteria: (i) projects were representative of the four types of program interventions, containing all elements of the proposed integrated interventions; and (ii) projects had to be of a scope that would facilitate the

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<sup>46</sup> BIM is a tool to make project management more efficient and precise, based on an integrated process that stores and streamlines the exchange of project information, creating a virtual model for decision-making at the various stages (design, architecture, engineering, construction, operation, and maintenance). Campestrini et al. 2015.

<sup>47</sup> This will entail the structuring of a monitoring and evaluation system, development of tracking indicators, and collection of field measurements.

<sup>48</sup> The program has three pillars: community mobilization and organization, health and environmental education, and job and income creation.

<sup>49</sup> The cost of the staff involved in the recently created PMU (see section III hereof) will be fully covered by the Recife municipal government budget, and, pursuant to local regulations, will not be considered counterpart resources.

<sup>50</sup> The technical profiles of the projects analyzed, broken down by type, are presented in the program technical reports for Components 1 and 2 (see [optional links 3](#) and [4](#)).

determination of basic costs and the technical, socioenvironmental, and economic criteria for the actions envisaged under the program. This ensured that the sample was not only significant but also enabled analysis of the program's most challenging projects, including type 3 projects (integrated macrodrainage projects).

**Table 1. Project types**

<b>Type</b>	<b>Sample projects</b>
<b>Type 1. Integrated urban development projects in flat areas.</b> This category includes all urban infrastructure and social services and facilities projects, projects to upgrade makeshift housing units, and the resettlement of families living in areas with risk level 3 or 4 or due to rehabilitation for road planning.	CIS: Beirinha Areias Chico Xavier Vila Miguel Arraes
<b>Type 2. Integrated urban development projects on hillsides.</b> This category includes all urban infrastructure and social services and facilities projects, projects to upgrade makeshift housing units, the resettlement of families living in areas with risk level 3 or 4 or due to rehabilitation for road planning, and the containment works for slopes at risk of landslides.	CIS: Jardim Monte Verde
<b>Type 3. Integrated macrodrainage projects.</b> These projects include the rehabilitation of riverbeds, establishment of parks in floodplains, and the resettlement of residents currently living in these areas.	Tejipió River
<b>Type 4. Slope containment projects.</b> These include slope containment works and the eventual use of these areas for recreation or urban facilities.	Marilac 2ª Travessa Tupiraçaba Rua Dr. Paulo Biase

## **C. Key results indicators**

- 1.29 The expected program impact will be estimated based on the socioeconomic benefit resulting from the reduction in morbidity and mortality rates and the increase in average property value per square meter in the target areas. This will be associated with achievement of the following outcomes:
- An increase in the beneficiary population's access to resilient urban infrastructure, urban and social services and facilities, and productive programs. This will be measured through: (i) households with effective access to safe drinking water; (ii) wastewater collection and treatment; (iii) resettled families; (iv) families with access to social facilities; and (v) women trained in entrepreneurship. The program could benefit around 39 CIS, with a total population of approximately 62,000 persons.
  - Reduction in flood and landslide risks, considering climate resilience criteria, as a result of a decrease in the number of high risk (R3) and very high risk (R4) areas in the city. The program is expected to reduce flood volume in the areas of influence of the Tejipió, Jiquiá, and Moxotó Rivers by 60% and mitigate landslide risk for 50% of the city's hillsides.
  - Improved housing conditions and reduced risk for around 4,400 families who will be resettled through the program.



- d. Modernization of the city's governance through implementation of at least three tools to improve urban management, expand access to affordable housing, and bolster the city's capacity for monitoring climate threats, using new digital technologies.
- 1.30 **Beneficiaries.** The program will primarily benefit low-income residents of vulnerable areas of the município of Recife, especially those residing in the priority CIS, including families currently exposed to high flood and landslide risks who will be resettled. The objective of the proposed actions is to bring better quality of life and greater security to the residents of these areas. The program will benefit over 15,000 families, 59% of which have heads of household who are women,<sup>51</sup> and minority residents of the project areas, through targeted socioproductive programs. Lastly, the civil servants of the Município of Recife will also benefit from the greater institutional capacity brought on by modern technological tools and new methodologies for carrying out their duties.
- 1.31 **Economic analysis.** Since this is a multiple works program, the program team performed a cost-benefit analysis on a representative sample of projects (see Table 1). All of the projects are economically viable with economic internal rates of return and net present values (using a discount rate of 12%) of 29.6%-53.7% and US\$6.5 million-US\$21.2 million for the urban development projects; 12.8%-88.0% and US\$90,000-US\$450,000 for the slope containment projects; and 15.9% and US\$11.3 million for the Tejió River macrodrainage project. For future urban development projects not included in the program sample, caps on the per-family cost were established as part of the eligibility criteria (US\$21,800 for projects in flat areas and US\$12,700 for projects on hillsides) to ensure socioeconomic viability. For the other components, cost-benefit analyses will be performed, and the program will only finance projects with an economic internal rate of return of over 12%. Lastly, according to information from COMPESA, an average household in the target area pays US\$24.5 per month for water and sewer services, or 2.3% of the average monthly household income. Poor households receive a reduced rate of approximately US\$3.40 per month, which constitutes 0.3% of the average monthly household income. These values are acceptable by international standards ([optional link 1](#)).

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 This program will be structured as a multiple-works loan for a total of US\$325 million, of which US\$260 million will come from the Bank's Ordinary Capital resources and US\$65 million will be the local counterpart contribution. The disbursement period will be six years (Table 3). This modality is justified because the program actions will have similar characteristics (a comprehensive approach to each target area that combines physical works and social services, plus standard engineering works on the rivers and slopes to be protected). Table 2 sets

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<sup>51</sup> CIS Socioeconomic Cadaster, Municipal Government of Recife, 2022.

out the estimated program costs, while Table 3 presents the disbursement schedule.

**Table 2. Estimated program costs (US\$)**

	Component	IDB	Local counterpart	Total	%
<b>1</b>	<b>Component 1. Integrated urban development</b>	<b>107,055,000</b>	<b>44,362,000</b>	<b>151,417,000</b>	<b>46.6%</b>
1.1	Integrated urban development	30,410,000	12,647,000	43,057,000	13.2%
1.2	Resettlement of families	70,751,000	30,109,000	100,860,000	31.0%
1.3	Housing improvements and land regularization	4,004,000	1,606,000	5,610,000	1.7%
1.4	Socioproductive development initiatives	1,890,000	-	1,890,000	0.6%
<b>2</b>	<b>Component 2. Resilient infrastructure</b>	<b>130,428,000</b>	<b>18,494,000</b>	<b>148,922,000</b>	<b>45.8%</b>
2.1	Macrodrainage of the Tejipió, Moxotó, and Jiquiá Rivers	78,672,000	-	78,672,000	24.2%
2.2	Slope containment	51,756,000	18,494,000	70,250,000	21.6%
<b>3</b>	<b>Component 3. Modernization of urban and housing management</b>	<b>9,341,000</b>	<b>2,144,000</b>	<b>11,485,000</b>	<b>3.5%</b>
3.1	Strengthening of tools for urban and housing planning	5,835,000	-	5,835,000	1.8%
3.2	Housing program innovation	3,506,000	2,144,000	5,650,000	1.7%
<b>4</b>	<b>Program administration</b>	<b>13,176,000</b>	<b>-</b>	<b>13,176,000</b>	<b>4.1%</b>
<b>Total</b>		<b>260,000,000</b>	<b>65,000,000</b>	<b>325,000,000</b>	<b>100.0%</b>

**Note:** The breakdown of resources at the subcomponent level is indicative.

**Table 3. Disbursements (US\$)**

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
IDB	10,933,607	33,870,569	54,766,593	76,460,905	48,595,264	35,373,062	260 million
Counterpart	3,394,244	10,258,397	13,101,129	15,757,923	13,651,550	8,836,758	65 million
<b>Total</b>	<b>14,327,851</b>	<b>44,128,966</b>	<b>67,867,722</b>	<b>92,218,828</b>	<b>62,246,814</b>	<b>44,209,820</b>	<b>325 million</b>
%	4.41%	13.58%	20.88%	28.38%	19.15%	13.60%	100.00%

## **B. Environmental and social risks**

- 2.2 In accordance with the Bank's Environmental and Social Policy Framework and based on the available information, the program has been classified as a Category "A" operation, as it involves the resettlement of approximately 4,000 families residing in at-risk areas who will be resettled to safe ones, as well as the removal, treatment, and management of approximately 675,000 m<sup>3</sup> of waste and mud under the macrodrainage projects, which could have considerable environmental impacts. Other potential impacts during the construction stage include: an increase in vibrations, noise, and the concentration of particulate matter at work sites; sediment runoff to bodies of water; an increase in erosion and alteration of landscapes during activities involving excavation and the cutting and

shaping of embankments; nuisances to local wildlife; and the creation of environments conducive to the spread of disease. The risk of natural disasters is also classified as high, since the area is highly exposed and vulnerable, mainly to flooding should rivers overflow or sea levels rise, and to landslides. The team has confirmed all of these classifications, as well as the magnitude of the adverse environmental and social impacts, through the environmental and social impact assessments performed during the due diligence review for the projects included in the representative sample, involving all four intervention types, including urban development projects in three communities, slope containment projects, and macrodrainage projects for one of the rivers targeted by the program.

- 2.3 In order to comply with the requirements of the Environmental and Social Policy Framework and the 10 Environmental and Social Performance Standards in particular, the executing agency has implemented an environmental and social management system, an environmental and social impact assessment, and an environmental and social management plan for each work included in the sample. Likewise, it has developed an environmental and social management framework for the projects not included in the sample. That framework establishes the guidelines for proper environmental and social performance for these projects. The executing agency has also developed a resettlement framework, which addresses, among other topics, the resettlement options offered to eligible families. The environmental and social management system, through the environmental and social management framework, will ensure that all future projects (i.e., the ones not included in the sample) are not Category “A” projects.
- 2.4 The results of the public consultations on the program’s environmental and social impacts, generally speaking, and on program resettlements, in particular, were positive. The program is welcomed and accepted by the individuals who will be resettled, benefited, and affected by the works. Questions from the public revolved around such issues as when the works would begin, details regarding the compensation methods, and how this program would interact with others that are being implemented. The entire consultation process was significant, and consultations will be ongoing throughout program implementation. The environmental and social consultation was held on 17 October 2022 using a hybrid format. Three in-person consultations regarding the resettlements were held on 4, 5, and 6 October 2022. Those events discussed such issues as the eligibility criteria for families who would be resettled and dates for the launch of the works. All consultations were considered meaningful and informative and involved significant public participation. The dissemination process took place through the <https://promorar.recife.pe.gov.br> website. The final documents were updated with the results of the consultations and have been posted on the Bank’s website.

### **C. Fiduciary risks**

- 2.5 The team has identified a medium-high fiduciary risk relating to human resources in the event that the executing agency does not have a technical-fiduciary team with the requisite capacity for executing procurement processes for the various works and services planned for the program components given the technological complexity and number of agents involved. In such a scenario, program management and the technical quality of the outputs could be negatively affected. To mitigate this risk, a PMU, staffed by full-time employees with technical

expertise, will be established. The PMU will also be supported by a management support firm throughout the program execution period.

**D. Other key issues and risks**

- 2.6 **Other risks.** In addition to the fiduciary risk, there are five other main risks: two high level risks and three medium-high risks. The first high-level risk is social in nature: if the families selected for resettlement because their homes are environmentally and socially vulnerable attempt to block the process, the works may not begin on time. This would affect compliance with the execution timeline, completion of the works, and achievement of the program objectives. To mitigate this risk, the following measures are anticipated: (i) the planned census of the families who will be resettled will include the various options that will be offered, so families can choose their preferred option; (ii) efforts will be made to develop a communication plan to keep the families informed; (iii) starting in the operation design stage, consideration will be given to offering more than one housing option; (iv) temporary housing subsidies will be provided to ensure that these families will have somewhere to live while the selected option is being prepared; (v) a specialized team with extensive experience will be hired to perform social follow-up with the families and provide them with information; and (vi) the program will work with local leaders on the resettlement process. The second risk, also considered high, concerns sustainability: if people move back to the high-risk areas vacated by the program for the planned projects, the start and completion of the program works will be negatively affected. To mitigate this risk, the program will: (i) coordinate and adjust the planned timelines for resettling the families with the schedules for launch of the works; (ii) engage a firm for management and supervisory support; and (iii) consolidate the urban planning system, including preventive controls.
- 2.7 The first of the three medium-high level risks identified is social in nature: if housing alternatives are not available on time or in locations acceptable to the families, their resettlement and the launch of the works may be delayed, affecting compliance with the timeline for execution and program closing. The following steps are proposed to mitigate this risk: (i) census results will be used to determine the timeline for meeting the demand for the various resettlement options; (ii) a monitoring system will be set up to track progress on the works and the planned implementation of the resettlement options; and (iii) social outreach and awareness-raising actions will be strengthened. The second medium-high level risk is institutional: if municipal government staff are reluctant to use the new technological tools, like the BIM, offered by the program, the digital transformation measures will not be implemented properly, which will affect the scope of outcomes related to management efficiency improvements. To mitigate this risk, the program will: (i) publish regulatory instructions mandating use of the new systems, as applicable; (ii) ensure active communication among the municipal employees who will use these systems; and (iii) implement ongoing training and awareness-raising programs with the teams participating in the program. Lastly, the third medium-high risk identified is legal in nature: if the program project works require the transfer of use of federal lands to the Município or the expropriation of private property, the complexity thereof could lead to delays in program implementation and compliance with disbursement schedules. To mitigate this risk, the program will: (i) map, in advance, the project intervention areas for the

various types of works and determine if transfers and/or expropriations are necessary; and (ii) strengthen the municipal government working groups that are already working with the federal government's Federal Properties Management Office to coordinate the survey of these areas and begin the process of transferring them to the Município. Expropriations will be supported by the Expropriation for Public Utility Act and use of the associated legal instruments.

- 2.8 **Sustainability.** The sustainability of the program actions will be ensured through: (i) construction or establishment of shared-use areas (parks, bicycle paths, athletic facilities, etc.) to prevent resettlement of the target areas; (ii) implementation of an urban planning system supported by community participation to ensure community buy-in, maintenance, and monitoring of the shared-use areas; (iii) promotion of strategies to facilitate housing solutions for the low-income population; and (iv) application of new technologies for urban management and to generate innovative housing solutions. The program will work in close coordination with the municipal sector agencies responsible for maintaining sanitation, drainage, and other important systems, including social services, to ensure they will take over responsibility for operating and maintaining the works and services implemented. Program activities will be coordinated with these sector agencies, strengthening their structures as needed in return. Furthermore, program investments in government modernization and training, including the creation of a system for managing and tracking environmental and climate risks, will make government-provided public services more effective and reliable. The Município will agree to: (i) incorporate the areas benefited by the program into its maintenance systems and plans so as to properly maintain them in accordance with widely accepted technical standards; and (ii) submit to the Bank status reports on the operation and maintenance of the works and equipment, starting the year after the first program work is completed and throughout the original disbursement period or any extension thereto.

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of implementation arrangements

- 3.1 The borrower will be the Município of Recife, and the guarantor of the borrower's financial obligations under the loan will be the Federative Republic of Brazil. The Município will execute the program through the ProMorar Recife Program Management Unit (PMU), which was recently created and approved by Law and will be responsible for coordinating and executing the program's multisector actions.<sup>52</sup> The PMU will report directly to the Mayor's Office.
- 3.2 **Institutional capacity analysis.** In 2022 the Bank performed an analysis of the executing agency using the institutional capacity analysis platform. It found that the executing agency has experience with projects with the Bank and other multilateral organizations but its institutional capacity needed to be strengthened so it could take on the responsibility of managing program resources, including accounting and financial administration, procurement and contracting, and the planning and monitoring of activities. To that end, the program will finance training

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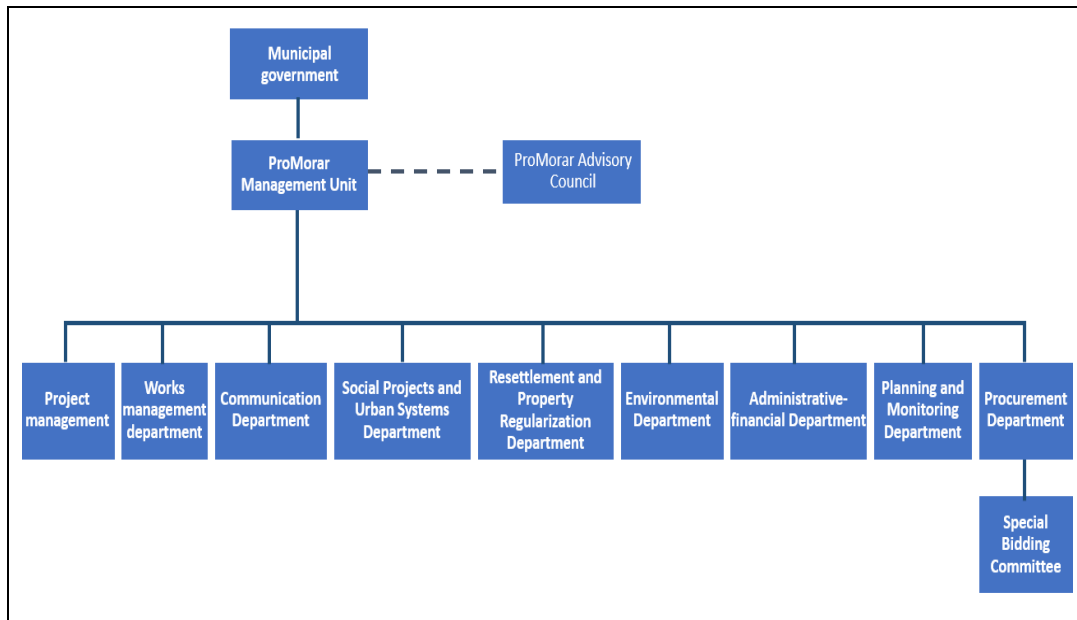
<sup>52</sup> [Municipal Law 18,983 of 13 September 2022](#); Article 4.

- for the technical and fiduciary staff, and the executing agency will receive support from specialized firms.
- 3.3 The PMU will be responsible for: (i) liaising with the Bank; (ii) coordinating with other municipal agencies and government agents involved in the program; (iii) planning and monitoring; (iv) administrative-financial, technical, environmental, and social management; (v) disbursement requests; (vi) procurement bids; (vii) reports on the use of funds; and (viii) submitting multiyear execution plans, annual work plans, procurement plans, and progress, auditing, and evaluation reports to the Bank. It will also be responsible for performing the applicable controls to ensure transparency and the proper use of the funds for which it is responsible.
- 3.4 To that end, the PMU will be led by a program general coordinator, who will be supported by the following full-time program staff:<sup>53</sup> (i) a project coordinator; (ii) a works coordinator; (iii) a socioenvironmental project coordinator (who will be supported by environmental and social technicians); (iv) a resettlement and property regularization coordinator; and (v) a planning, management, and monitoring coordinator. The latter will be supported by financial/administrative technicians specialized in planning, monitoring, and procurement, and there will be a special bidding committee. All members of the PMU will be employees of the Recife municipal government, their positions will be financed by the municipal budget, and, as conditions of their appointment, they must have the minimum technical expertise necessary to achieve the program objectives and the Bank's no objection. The PMU will also receive specialized technical support from consulting firms for: (i) technical/administrative management of the program; (ii) resettlement activities and other environmental and social aspects (technical and social work); and (iii) works supervision.

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<sup>53</sup> [Municipal Law 18,983 of 13 September 2022](#); Article 6.

Figure 1. Program execution organizational chart



Source: IDB.

- 3.5 **Interagency coordination mechanism.** A program advisory council will be formed by the municipal agencies directly or indirectly involved in the program. Its duties and responsibilities will be discussed in the program Operating Regulations.
- 3.6 During execution, the PMU will receive technical support from the municipal administrative agencies involved in the actions to be executed, in line with their areas of responsibility and legal powers and duties. The roles and responsibilities of the various municipal government offices will be discussed in the program Operating Regulations. In addition, the Municipio will appoint a special bidding committee for executing the bidding processes, in accordance with Bank policies. This committee will receive support from one firm for the technical and environmental supervision of the works, from another for the technical and social support activities associated with the resettlement processes, and from another for the technical/administrative management of the program. COMPESA will support project preparation and implementation of the water and sanitation works, and the borrower will deliver such works to COMPESA for operation and maintenance.
- 3.7 **Operating Regulations.** The program Operating Regulations ([required link 2](#)) will steer program execution and will include: (i) the program's organizational structure; (ii) technical and operational arrangements for execution; (iii) plans for monitoring and evaluating results; (iv) guidelines for financial, auditing, and procurement processes; (v) operational guidelines for execution of the components; (vi) details regarding the PMU's duties as well as the responsibilities of other relevant agencies involved in the planned program processes; (vii) details regarding the duties of the program advisory council as the interagency coordination mechanism; (viii) the activities eligible for financing under the various program components; and (ix) the main functions of the execution support firm.

- 3.8 **Contractual conditions precedent to the first disbursement:** The executing agency will submit to the Bank evidence of the: (i) approval and entry into force of the program [Operating Regulations](#), in the terms previously agreed upon with the Bank; and (ii) creation of the PMU and appointment of the program general coordinator. These conditions are justified since the program Operating Regulations are key to facilitating successful program execution given that they establish, in detail, the guidelines and procedures to be followed by the executing agency. Likewise, the PMU is required to ensure that the program has the leadership staff necessary for launch of project management, procurement, financial administration, and other processes.
- 3.9 **Special contractual conditions for execution:** (i) before the issuance of the first service order for the program's water and sanitary sewer projects, the borrower will submit to the Bank evidence of the signing and entry into force of a cooperation agreement between the borrower and COMPESA establishing both parties' responsibilities in preparing, executing, operating, and maintaining the respective works, pursuant to the terms previously agreed upon with the Bank; (ii) before the issuance of service orders for execution of each stage of the program works, the borrower will submit to the Bank evidence that it legally owns the property where the work will be done, and that it has the easements and other rights and/or authorizations necessary for construction and use; (iii) before the issuance of the first service order for the integrated urban development or macrodrainage project works, the borrower will submit to the Bank evidence that a firm has been hired to provide program management support; (iv) before the launch of execution of each program work, the borrower will submit evidence that a firm has been hired for the technical and environmental supervision thereof, or, alternatively, that a qualified municipal team is in place for such purpose; and (v) the borrower will start program works within four years after the signing of the loan contract, except in the case of the slope containment works under Component 2 and the residential unit improvements under Component 1, which may be started within five-and-a-half years of that date. Additional special contractual conditions for disbursement and execution can be found in the environmental and social action plan and in Annex B of the environmental and social review summary.
- 3.10 **Retroactive financing and recognition of expenditures.** The Bank may finance, retroactively from the loan proceeds, up to US\$15 million (5.8% of the proposed loan amount), and may recognize, as a charge against the local counterpart contribution, up to US\$15 million, in eligible expenditures incurred by the borrower prior to the loan approval date for program-eligible studies, projects, and works, provided that requirements substantially similar to those established in the loan contract have been met. These expenditures must have been incurred on or after the project profile approval date (18 August 2022) and under no circumstances may include expenditures incurred more than 18 months before the loan approval date.
- B. Summary of arrangements for monitoring results**
- 3.11 **Monitoring.** The executing agency will monitor and supervise all project management processes, to include, at a minimum: (i) monitoring and reporting on progress in program execution; (ii) monitoring and reporting on program performance toward fulfillment of the annual physical and financial targets;



(iii) monitoring execution of the procurement plan ([required link 4](#)); (iv) monitoring risk management documents; (v) monitoring the traceability of outputs and outcomes; (vi) preparing semiannual progress reports; (vii) updating the program's multiyear execution plan ([required link 1](#)), which will be sent to the Bank as part of every semiannual progress report; (viii) issuing program financial statements; (ix) preparing the project completion report; and (x) documenting good practices and lessons learned with a view to program closing. The Bank will hold an annual follow-up meeting with the executing agency to discuss such issues as: (i) the status of the activities identified in the annual work plan ([required link 1](#)); (ii) the level of fulfillment of the indicators established for each component; (iii) annual work plan for the following year; (iv) the procurement plan for the following 18 months; and (v) potential modifications to the per component budget allocations ([required link 2](#)).

- 3.12 **Evaluation.** The results matrix and monitoring and evaluation plan will be used for program evaluation, among other tools. The program calls for a midterm and a final evaluation, to include an ex post cost-benefit analysis addressing technical, administrative, and financial considerations. The midterm evaluation will be conducted once 50% of the loan proceeds have been disbursed or three years have passed since the loan contract entered into force (whichever occurs first). The associated report will be submitted to the Bank within 60 days after the evaluation is performed. The main objectives of this evaluation will be to review the progress made on all activities planned for that period, discuss any deviations from the plan that may have occurred and the causes thereof, propose corrective measures, and verify the midterm outputs generated, the occurrence of risks foreseen in the corresponding matrix, and implementation of the mitigation measures.
- 3.13 The final evaluation will be submitted to the Bank 60 days after the end of the original disbursement period or any extensions thereto. It will include: (i) outcomes of physical/financial execution; (ii) degree of fulfillment of the results matrix targets, including a summary of the results comparing them to the baseline prepared in the first year of execution; (iii) a summary of the results of the audits performed and of implementation of the improvement plans; (iv) an analysis of the sustainability of program investments, especially with regard to costs and human capital management; and (v) a summary of the main lessons learned. It will also include an evaluation based on the before-and-after methodology, as well as the economic evaluation, which will be prepared based on an ex post cost-benefit analysis that will replicate the ex ante program economic analysis, using data gathered during execution and updating the data vis-à-vis the comparators ([required link 2](#)). This analysis will also be reflected in the project completion report prepared by the Bank.

Development Effectiveness Matrix		
Summary		BR-L1609
I. Corporate and Country Priorities		
Section 1. IDB Group Strategic Priorities and CRF Indicators		
Development Challenges & Cross-cutting Issues	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change -Institutional Capacity and the Rule of Law	
CRF Level 2 Indicators: IDB Group Contributions to Development Results	-Households with improved access to water and sanitation (#) -Households with improved access to energy services (#) -Beneficiaries of employment support initiatives (#) -Women beneficiaries of economic empowerment initiatives (#) -Emissions avoided (annual tons CO2 equivalent) -Beneficiaries of enhanced disaster and climate change resilience (#) -Agencies with strengthened digital technology and managerial capacity (#)	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-2973	Implement efficient policies to increase access to housing
Country Program Results Matrix		The intervention is not included in the 2022 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		7.5
3.1 Program Diagnosis		1.9
3.2 Proposed Interventions or Solutions		1.6
3.3 Results Matrix Quality		4.0
4. Ex ante Economic Analysis		7.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		1.5
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		2.5
4.4 Sensitivity Analysis		0.0
4.5 Consistency with results matrix		0.0
5. Monitoring and Evaluation		8.3
5.1 Monitoring Mechanisms		4.0
5.2 Evaluation Plan		4.3
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium High
Environmental & social risk classification		A
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit.  Procurement: Information System, Price Comparison, Contracting Individual Consultant
Non-Fiduciary	Yes	Strategic Planning National System, Statistics National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

The proposal's general objective is to contribute to the improvement of the habitability conditions for the population living in the areas of greatest socio-environmental vulnerability in the city of Recife. Three specific objectives are stated to achieve this goal: (i) Increasing access to infrastructure, facilities and urban and social services, and to productive programs; (ii) Reducing the risks of floods and landslides, taking into account considerations of climate resilience and climate adaptation; and (iii) Increasing the capacity of Recife's Office of the Mayor for housing and urban development management, and environmental and climate risk management. The diagnostic is adequate, with a well-identified problem and its main determinants. The analysis finds that the city of Recife has experienced a rapid and informal urbanization process, caused by fast population growth, lack of adequate urban planning instruments and limited supply of affordable housing for low-income population (Nogueira, 2019). The diagnostic shows figures that quantify the gaps in access to basic services such as clean water and sewage, the magnitude of variables associated to a quantitative and qualitative housing deficit (PLHIS, 2021), and other important variables such as the number of houses with irregular tenure or exposed to risks of flooding and landslides. The diagnostics explains that the city of Recife also faces high vulnerability due to the effects of climate change, and the problem is aggravated by its geography and occupation pattern, since nearly 206,000 people have settled in areas exposed to risks of floods or landslides (IBGE, 2019), particularly on the banks of the Tejo, Jiquiá and Moxotó rivers, where a high number of slopes have been classified by Civil Defense as high and very high risk. On the other hand, the diagnostic explains that another important determinant associated with the central problem lies in the institutional weakness of Recife's Office of the Mayor to carry out adequate urban planning and disaster risk management due to: the lack of updated instruments, poor management systems, disorganized and scattered institutional data, and the need for technological solutions to optimize operational management and monitoring risks of potential climatic disasters (through an early warning system).

The Results Matrix was updated by the team to exhibit a vertical logic with clear specific objectives and SMART result indicators that enables monitoring. Outcome indicators of component # 2 have been adjusted to ensure they all have standardized measurement parameters and are SMART indicators.

The economic analysis incorporated all costs for a representative sample of projects that include components of (i) integrated urbanization and (ii) resilient infrastructure. A Cost Benefit Analysis (CBA) was performed using a discount rate of 12%, in line with similar projects. Under the base scenario and under the assumptions employed, the CBA finds rates of economic return (ERR) of between 29.6% and 53.7% for urbanization projects; and from 12.8% to 88.0% for slope containment projects, and 15.9% for the Tejo River macro-drainage project. It should be noted that a sensitivity analysis was not carried out on critical parameters associated with the most sensitive assumptions for which there is not much information but that are being used for the analysis; for example, the estimation of the benefits of "Resilient infrastructure - containment of pending" does not include a sensitivity analysis for the probability of occurrence of disasters. The cost-benefit estimation of this subsection should correspond to a probabilistic analysis that quantifies the expected value of the damages avoided under different scenarios of probability of occurrence of disasters in the absence of the project, and also taking into account different degrees of magnitude according to what would be expected for each urbanization according to its exposure to risk. This analysis would result in a more realistic estimate of the expected ERR, since the current calculation (without sensitivity analysis) assumes that all the entire property value at risk is lost with certainty if the project is not carried out, which as consequence increases the calculated EIRR.

Monitoring will be based on reports from the executing agency. The evaluation methodology for the indicators associated with the specific objectives is reflexive (before-and-after). Additionally, an evaluation based on the differences-in-differences methodology is proposed to study the impact of the program on the general objectives, but the M&E Plan must incorporate more information on methodological aspects and technical details, and the necessary data that will be collected to carry out a complete evaluation employing a differences-in-differences approach (The Monitoring and Evaluation Plan describes only a difference of means against a non-random control group at the end of the operation, but the diff-in-diffs methodology also controls against initial conditions; the plan does not detail data sources, or if primary data -baseline and online surveys- will be collected, or the outcome indicators on which the contribution of the program will be measured, and they do not include a budget associated with the evaluation with attribution either).

The analysis identifies risks to the operation. Two risks are high and 4 are medium-high. High risks include possible delays in the execution schedule and the resettlement of families.

## RESULTS MATRIX

<b>Project objective:</b>	The general objective of the program is to help improve living conditions for residents of the most socially and environmentally vulnerable areas of the city of Recife. The specific objectives are to: (i) increase access to urban and social infrastructure, facilities, and services and to productive programs; (ii) reduce flood and landslide risks, taking into account climate adaptation and resilience criteria; and (iii) increase the Recife municipal government's capacity for managing urban and housing development and environmental and climate risks.
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### GENERAL DEVELOPMENT OBJECTIVE/EXPECTED IMPACT

Indicator	Unit of measure	Baseline value	Baseline year	Target		Means of verification	Comments
				Value	Year		
General development impact: Help improve living conditions for residents of the most socially and environmentally vulnerable areas of the city of Recife							
Socioeconomic benefit resulting from the reduction in morbidity and mortality rates	US\$ / beneficiary year	0	2022	3,880	2028	Report on the ex ante and ex post economic analysis of the program	The indicator refers to the productivity gains measured by disability-adjusted life years (DALY). <sup>1</sup> Calculation formula: DALY X percentage attributable to diarrhea-related diseases <sup>2</sup> X percentage reduction of diseases <sup>3</sup> X GDP per capita. <sup>4</sup>
Average property value per square meter in the target areas	US\$/m²	19.4	2022	22	2028	Report on the ex ante and ex post economic analysis of the program	<b>Baseline:</b> Period - Last 5 years of real property transfer tax assessments. Data taken from assessments on main roads, lots larger than 500 m², and properties worth over 1 million. Research building type – CASAtodo.

<sup>1</sup> DALY: metric that facilitates evaluation of any kind of disease. The concept combines years of life lost due to premature death, measured by the difference between life expectancy and age of death, and the years lived with a disability. Troeger, C., M. Forouzanfar, P.C. Rao, I. Khalil, A. Brown, R.C. Reiner, et al. [Estimates Of Global, Regional, and National Morbidity, Mortality, and Aetiologies Of Diarrhoeal Diseases: A Systematic Analysis for the Global Burden of Disease Study 2015](#). *Lancet Infectious Diseases* 17:9 (2017): 909-48.

<sup>2</sup> <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/attributable-fraction-of-diarrhoea-to-inadequate-water>

<sup>3</sup> *Estudo Longitudinal de Avaliação dos Impactos Socioeconômicos*. Leme Engenharia. December 2004.

<sup>4</sup> GDP per capita in Recife (IBGE, 2019).

Indicator	Unit of measure	Baseline value	Baseline year	Target		Means of verification	Comments
				Value	Year		
							<b>Target:</b> Albuquerque, E.E. <a href="#">Ativo ambiental e preço de imóvel na cidade do Recife: um estudo exploratório a partir da utilização dos médios preços hedônicos</a> , 2008. Exchange rate: US\$1=R\$5.58

**SPECIFIC DEVELOPMENT OBJECTIVES/EXPECTED OUTCOMES**

Indicator	Unit of measure	Baseline		Target	Means of verification	Comments
		Value	Year	Total / Project-end		
Specific development objective 1: Increase access to urban and social infrastructure, facilities, and services and to productive programs						
Households in the target areas with effective access to safe drinking water	# of households	13,376	2022	15,000	COMPESA reports	Around 1,500 new effective connections are planned. Corporate Results Framework (CRF): (*) Households with improved access to water and sanitation
Households in the program target areas with effective access to wastewater collection	# of households	1,452	2022	15,000	COMPESA reports	Around 13,500 new effective connections are planned. CRF: (*)
Households in the program target areas whose wastewater is treated	# of households	1,452	2022	15,000	COMPESA reports	Around 13,500 new effective connections are planned. CRF: (*)
Families resettled by the program	# of families	0	2022	2,400	PMU progress monitoring report (PMR)	Number of families resettled because their homes were located in high-risk areas or areas expropriated for program works
Households in housing units in areas regularized by the program	# of households	0	2022	14,500	PMU PMR	The program intends to regularize 260 hectares where these households are located.
Families with access to social facilities established through the program	# of families	0	2022	5,000	PMU PMRs Acceptance certificates for the social facilities built by the program	All families in all the CIS targeted by the program will have access to at least one social facility (healthcare units, day care centers, schools, community centers, etc.).

Indicator	Unit of measure	Baseline		Target	Means of verification	Comments
		Value	Year	Total / Project-end		
Women trained in entrepreneurship	# of women	0	2022	1,000	PMU PMRs	Pro-gender indicator. According to Recife's Atlas of Infrastructure and CIS, the target population for these trainings could comprise approximately 10,000 women ages 18 to 50. CRF: Women beneficiaries of economic empowerment initiatives; Beneficiaries of employment support initiatives
<b>Specific development objective 2: Reduce flood and landslide risks, taking into account climate adaptation and resilience criteria</b>						
Households in the target areas that are at high risk (R3) or very high risk (R4) of landslides, protected	# of households	0	2022	2,000	Reports from the Civil Defense Department	The Civil Defense Corps of the city of Recife classifies risk into four levels, with level 3 and 4 denoting "high" and "very high" risk, respectively. At present there are 7,740 households in R3 and R4 zones.
Households in the target areas protected from the risk of floods (25-year return period) <sup>5</sup>	# of households	0	2022	9,000	EMLURB reports	The flood profile from the project's hydraulic simulations, calculated for before and after execution of the works, can be used to determine which families should be relocated outside the flood-prone areas. There are currently 17,764 properties in flood-prone areas.
<b>Specific development objective 3: Increase the Recife municipal government's capacity for managing urban and housing development and environmental and climate risks</b>						
Municipal agencies with strengthened digital technology and managerial capacity (CRF indicator 2.6)	#	0	2022	8	PMU PMR	This refers to the number of municipal agencies or bodies that benefit from adoption of the systems implemented by the program. CRF: Agencies with strengthened digital technology and managerial capacity
Number of families served by new municipal housing programs	#	0	2022	636	PMU PMR	Total number of families benefiting from the following programs: rent subsidy; the "Morar Primeiro" first home program; social management of condominiums in low-income housing complexes; and other housing program initiatives.

<sup>5</sup> For the purposes of calculating CRF indicator 2.20, the average number of persons per household in the CIS is three.

OUTPUTS

Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
<b>Component 1. Integrated urban development</b>												
1.1 Urbanized area	Hectares	0	0	12	30	65	80	73	260	US\$26,307,000	PMU semiannual progress report	"Urbanized area" refers to areas with paved streets, sidewalks, public lighting, signage, landscaping, parks, squares, and recreation areas.
1.2 New household connections built in the target areas	# of connections	0	0	200	1,440	4,000	5,250	3,716	14,606	US\$1,450,000	PMU semiannual progress report	This includes household connections to the sewer network. This output does not include indoor connections.
1.3 Sanitary sewer network in the program target areas, expanded	Linear meters	0	0	4,300	11,500	23,000	17,542	11,752	68,094	US\$4,000,000	PMU semiannual progress report	
1.4 Social facilities, built and operating	# of facilities	0	0	4	6	12	10	8	40	US\$11,300,000	PMU semiannual progress report	Eligible projects are public service centers, day care centers, schools, medical centers, public gyms, community centers, and other social facilities. The facilities will meet national requirements for certification or equivalent.
1.5 Housing solutions created by the program and offered to the families to be resettled	# of housing solutions	0	0	950	1,000	1,150	950	363	4,413	US\$100,860,000	PMU semiannual progress report	The housing solutions offered by the program include new housing units; homebuyer assistance; and housing subsidies.

Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
1.6 Upgraded housing units	# of housing units	0	0	50	205	450	400	95	1,200	US\$5,400,000	PMU semiannual progress report	This refers to housing units whose kitchens, bathrooms, rooves, and indoor connections were upgraded according to the inhabitants' needs. The projects will take the risk analysis into account and give priority to resilient solutions.
1.7 Hectares in CIS regularized	Hectares	0	0	12	30	65	80	73	260	US\$210,000	PMU semiannual progress report	This refers to the hectares of land that will be regularized thanks to the legal support provided by the program.
1.8 CIS served through complementary actions for gender and diversity inclusion (Afro-descendants, LGBTQI+ persons, and persons with disabilities)	# of CIS	0	0	0	11	7	0	26	44	US\$630,000	PMU semiannual progress report	Pro-gender and pro-diversity indicator. This refers to the number of CIS where supplementary social inclusion actions were implemented. The indicator can be disaggregated as follows: CIS served with supplementary social inclusion actions targeting women; CIS served through supplementary social inclusion actions targeting LGBTQI+ persons; and CIS served with supplementary social inclusion actions targeting persons with disabilities. Supplementary actions include: (i) participatory diagnostic assessments; (ii) implementation of small

Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
												works steered by the diagnostic assessment with a view to serving persons with disabilities; (iii) design and launch of the <i>Andar Livre</i> app for CIS residents; and (iv) campaigns against gender-based violence.
1.9 Entrepreneurship training workshops for women	# of workshops	0	0	4	4	4	4	4	20	US\$450,000	PMU semiannual progress report	This refers to the number of workshops on entrepreneurship and civil construction held for women living in CIS.
1.10 Action plan for the training and productive inclusion of the LGBTQI+ population	# of plans	0	0	1	0	0	0	0	1	US\$450,000	PMU semiannual progress report	Pro-gender indicator. This refers to the design of a methodology for the productive inclusion training for LGBTQI+ people living in CIS.
1.11 Award-winning youth social impact entrepreneurship initiatives involving Afro-descendant participants	# of initiatives	0	6	6	6	6	6	6	36	US\$360,000	PMU semiannual progress report	Pro-diversity indicator. This refers to the number of award-winning initiatives whose participants or members are Afro-descendants.



Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
<b>Component 2. Resilient infrastructure</b>												
2.1 Macrodrainage works executed	Linear meters	0	0	1,096	1,538	3,716	1,445	945	8,740	US\$27,345,000	PMU semiannual progress report	This refers to the linear macrodrainage works along the Teijipió, Jiquiá, and Moxotó Rivers. These works include rehabilitation of riverbanks and areas, such as with bicycle paths and other measures to protect the banks and prevent people from taking residence there.
2.2 Linear parks established	Hectares	0	0	0	26	39	13	13	91	US\$51,327,000	PMU semiannual progress report	Linear parks serve as buffers during rain events.
2.3 Slope containment works completed	m <sup>2</sup>	0	8,800	7,628	8,564	10,032	7,704	5,220	47,948	US\$69,660,000	PMU semiannual progress report	This refers to slope containment works in zones classified as high or very high risk. The measurement is the total area of the slope where the work takes place.
2.4 Slope containment works with public facilities established	m <sup>2</sup>		118	177	415	296	474	296	1,776	US\$590,000	PMU semiannual progress report	This refers to slope containment works in zones classified as high or very high risk. It will be measured as the total area of protected slope that is covered by the respective public facility (e.g., squares with benches, basketball courts, etc.).

Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
<b>Component 3. Modernization of urban and housing management</b>												
3.1 Urban, housing, and socioenvironmental data management system, implemented	Modules	0	1	1	1	1	1	0	5	US\$900,000	PMU semiannual progress report	This consists of the digitalization, augmentation, and interconnection of the municipal government's databases for the management of urban, housing, social, and environmental data. The steps to be carried out are system structure, base platform, digitalization, integration of databases, and development of the new modules.
3.2 Computers for BIM procured and installed	# of computers	0	50	0	0	0	0	0	50	US\$81,000	PMU semiannual progress report	Computer package (hardware) with low energy consumption tested for BIM, installed and operating
3.3 BIM software procured and installed	# of licenses	0	50	0	0	50	0	0	100	US\$925,000	PMU semiannual progress report	Initial three-year licenses and renewals
3.4 BIM training courses held	# of courses	0	0	1	0	0	0	0	1	US\$554,000	PMU semiannual progress report	This refers to a training course, to include training on evaluating energy performance and environmental impact, held for the public employees of the Recife municipal government.
3.5 Recife PLHIS updated	Plan	0	1	0	0	0	1	0	2	US\$325,000	PMU semiannual progress report	Under Brazilian law, this plan must be updated every four years. The prepared document is sent to the Recife city council.

Output	Unit of measure	Base-line value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Final / project-end target	Cost of product / Project end	Means of verification	Comments
3.6 Climate risk monitoring and management system, developed	Risk management tools	0	0	2	1	1	0	0	4	US\$2,420,000	PMU semiannual progress report	This output includes the preparation, adoption, and dissemination (workshops) of the following tools: (i) guide to resilient construction; (ii) disaster risk early warning system; (iii) river and sea flood risk management plan; and (iv) landslide risk management plan.
3.7 Training workshops for women community agents on preventing and managing climate risks	#	0	0	4	4	4	4	4	20	US\$90,000	PMU semiannual progress report	Pro-gender indicator. This refers to the number of workshops organized for women community leaders on risk management so they can act as point people for their CIS.
3.8 Urban planning system implemented	Modules	0	0	1	1	1	0	0	3	US\$540,000	PMU semiannual progress report	This consists of the digitalization and automation of urban oversight as well as the preparation of post-relocation protocols. There are three modules to be developed: system structure; digitalization; and automation.
3.9 Housing innovation program pilots implemented	# of programs piloted	0	0	0	0	0	0	3	3	US\$5,650,000	PMU semiannual progress report	This output includes implementation-tests of pilot projects to offer housing solutions, like the rent subsidy program; the "Moradia Primero" first home program; social management of condominiums in low-income housing complexes; and other programs to be identified during execution.

**Country:** Brazil

**Division:** HUD

**Operation number:** BR-L1609

**Year:** 2022

### FIDUCIARY AGREEMENTS AND REQUIREMENTS

**Executing agency:** Município of Recife, through the ProMorar Recife Program Management Unit

**Operation name:** Urban Resilience and Revitalization Program in Socially and Environmentally Vulnerable Areas - ProMorar Recife

#### I. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

##### 1. Use of country systems in the operation<sup>1</sup>

<input checked="" type="checkbox"/> Budget	<input type="checkbox"/> Reports	<input checked="" type="checkbox"/> Information system	<input type="checkbox"/> National competitive bidding
<input checked="" type="checkbox"/> Treasury	<input type="checkbox"/> Internal audit	<input checked="" type="checkbox"/> Shopping	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Accounting	<input checked="" type="checkbox"/> External control	<input type="checkbox"/> Individual consultants	

##### 2. Fiduciary execution mechanism

<input checked="" type="checkbox"/>	Special features of fiduciary execution	The borrower and executing agency will be the Município of Recife, through the ProMorar Recife Program Management Unit (PMU), which will be in charge of program technical, administrative, financial, and procurement management.
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##### 3. Fiduciary capacity

Fiduciary capacity of the executing agency	An institutional assessment for program fiduciary management was prepared, guided by (i) the country's fiduciary context at the time; (ii) the results of the evaluation of the main fiduciary risks; (iii) the institutional analysis; and (iv) work meetings with the Bank project team, executing agency, and other State authorities. This assessment found that the executing agency's institutional capacity is satisfactory for program execution.
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<sup>1</sup> Any system or subsystem approved subsequently may be applicable to this operation, in accordance with the terms of the Bank's validation.

4. Fiduciary risks and risk response

Risk classification	Risk	Risk level	Risk response
Human resources	If the executing agency does not have staff experienced in the use of IDB fiduciary policies, the launch of the program could be delayed, which would lead to higher costs and longer implementation times.	Medium-low	For the risks associated with financial and procurement management, the following actions were developed: (i) ongoing strengthening of the executing agency through training sessions, assistance, and supervision by the Bank's fiduciary team; (ii) creation of a special bidding committee for the program; and (iii) detailing of the financial requirements in the program Operating Regulations.
Systems	If the program financial management system has not been procured prior to the launch of program execution, the submission of financial information may be delayed, which could block or push back disbursement requests.	Medium-high	A technological solution enabling management of program accounting in U.S. dollars and generation of Bank-required financial reports will be developed or procured within six months from the date the loan contract is signed.

5. Policies and guidelines applicable to the operation: documents GN-2349-15 and GN-2350-15 (procurement); document OP-273-12 (financial).
6. Exceptions to policies and guidelines: Not applicable.

**II. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT**

<p><b>Exchange rate:</b> For purposes of Article 4.10 of the General Conditions, the parties agree that the applicable exchange rate will be the one indicated in subsection (b)(i) thereof. For purposes of determining the equivalence of expenditures incurred in local currency against the local counterpart contribution or the reimbursement of expenditures financed from the loan proceeds, the agreed upon exchange rate will be the exchange rate on the effective date on which the borrower, executing agency, or any other person or legal entity authorized to incur expenses, makes the respective payments to the contractor, vendor, or beneficiary.</p>
<p><b>Audit type:</b> The program's audited annual financial statements will be submitted to the Bank every year, no later than 120 days following the close of each of the executing agency's fiscal years. The statements will be duly audited by the Pernambuco Office of the Auditor General or by an independent external audit firm acceptable to the Bank. The program's final audited financial statements will be submitted no more than 120 days after the effective date of the final disbursement.</p>

### III. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

<input checked="" type="checkbox"/>	Bidding documents	The Bank's standard bidding documents or other documents agreed upon by the executing agency and the Bank for the procurement in question will be used for the procurement of works, goods, and nonconsulting services subject to international competitive bidding (ICB), executed in accordance with the procurement policies (document GN-2349-15). Likewise, the selection and contracting of consulting services will be executed according to the policies for the selection of consultants (document GN-2350-15) using the Bank-issued standard request for proposals or the request form agreed upon by the executing agency and the Bank for the selection process in question.								
<input checked="" type="checkbox"/>	Advance procurement / Retroactive financing	The Bank may finance, retroactively from the loan proceeds, up to US\$15 million (5.8% of the proposed loan amount) in eligible expenditures incurred by the borrower prior to the loan approval date for studies and projects to be executed with loan proceeds, as well as for execution of the program-eligible priority slope containment works and macrodrainage projects, provided that requirements substantially similar to those established in the loan contract have been met. These expenditures must have been incurred on or after the project profile approval date (18 August 2022) and under no circumstances may include expenditures incurred more than 18 months before the loan approval date. The Bank may also recognize, as part of the local counterpart contribution, up to US\$15 million in eligible expenditures incurred after the aforementioned date, provided that requirements substantially similar to those established in the loan contract have been met.								
<input checked="" type="checkbox"/>	Procurement supervision	<p>Supervision will be ex post, except where ex ante supervision is warranted. Procurement processes conducted through the country system will be supervised using the country supervision system. The supervision method (ex ante, ex post, or country system) will be determined for each selection process. Ex post reviews will be conducted as per the project supervision plan, which is subject to change during execution. The thresholds for ex post review are as follows:</p> <table><tr><th>Executing agency</th><th>Works</th><th>Goods/services</th><th>Consulting services</th></tr><tr><td>PMU</td><td>US\$10 million</td><td>US\$5 million</td><td>US\$1 million</td></tr></table>	Executing agency	Works	Goods/services	Consulting services	PMU	US\$10 million	US\$5 million	US\$1 million
Executing agency	Works	Goods/services	Consulting services							
PMU	US\$10 million	US\$5 million	US\$1 million							

## Major procurements

Description	Selection method	Estimated date	Estimated amount (U.S. dollars)
<b>Works</b>			
Macrodrainage in the Tejipió River	ICB	2023-III	15,510,000
Establishment of linear parks	ICB	2023-II	38,004,000
Housing assistance works for resettled families	ICB	2023-I	53,442,000
<b>Consulting firms</b>			
Program technical and social work	Quality- and cost-based selection (QCBS)	2023-II	1,907,000
Program management support	QCBS	2023-I	8,200,000
Rent subsidy program pilot	QCBS	2023-III	2,501,000

See the [procurement plan](#).

## IV. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

<input checked="" type="checkbox"/>	Programming and budget	The executing agency, through the PMU, is responsible for coordinating the entire planning process for execution of the activities as planned in the multiyear execution plan and the annual work plan. State agencies use such planning instruments as the multiyear plan, the targets and priorities established in the Budget Guidelines Act, and the actions set out in the Annual Budget Law. The budget allocated for program activities is included in the Annual Budget Act. The executing agency team will ensure that the program budgetary resources, including both IDB funds and the local contribution, are duly allocated and secured for annual execution pursuant to the program's operational programming and financial plan.
<input checked="" type="checkbox"/>	Treasury and disbursement management	Disbursements and cash flow. Disbursements will be made in U.S. dollars using the advance of funds modality or any other modality established in the Financial Management Guidelines for IDB-financed Projects (document OP-273-12). Advances will be made based on a financial plan prepared for a period of up to 180 days. After the first advance, subsequent advances will be processed after 80% of the total cumulative balance of advances has been justified. If necessary, use of the adjustments established in the Financial Management Guidelines for IDB-financed Projects (document OP-273-12) may be analyzed. The "online disbursement" electronic platform will be used to manage the disbursements vis-a-vis the Bank.

		<p>Bank resources will be administered through an exclusive account that supports identification of the loan proceeds and preparation of the respective bank reconciliations.</p> <p>For purposes of accounting for loan and local counterpart proceeds, the executing agency will use (i) the exchange rate in effect at the time the funds advanced in the operation currency were converted to the local currency, in the case of IDB resources; and (ii) the exchange rate in effect on the date of payment in the case of reimbursements of expenses and recognition of expenditures against the local counterpart contribution. Expenses deemed ineligible by the Bank will be reimbursed with local counterpart funds or other resources, at the borrower's discretion and with Bank approval, depending on the nature of the ineligibility.</p>
<input checked="" type="checkbox"/>	Accounting, information systems, and reporting	<p>The Município is required to use the Sistema Orçamentário Financeiro [Financial Budgeting System] (SOFIN), administered by the Ministry of Finance, which handles all financial, accounting, and financial planning execution for the Município's operations.</p> <p>This system can be used to export accounting information to other environments. However, it currently does not support the identification of program transactions in the operation currency (U.S. dollar) as required by the Bank.</p> <p>Accordingly, no later than six months after the signing of the loan contract, the executing agency will develop a financial management module integrated with SOFIN or otherwise procure a system that supports the generation of reports for program disbursement and financial reporting processes, as well as other basic reports requested by the IDB.</p>
<input checked="" type="checkbox"/>	Internal control and internal audit	<p>The Office of the Comptroller General of the Município of Recife is in charge of the government's internal auditing function.</p>
<input checked="" type="checkbox"/>	External control and financial reporting	<p>The Pernambuco Office of the Auditor General is in charge of the external control of the Município of Recife.</p> <p>The external auditing of the program may be carried out by the Pernambuco Office of the Auditor General or by an independent external audit firm eligible to audit Bank-financed operations, according to the terms of reference previously agreed upon by the borrower and/or the executing agency and the Bank, which may be adjusted over the course of the project depending on the outcomes of the Bank's supervision.</p> <p>The audited financial statements will have a cutoff date of 31 December and will be submitted within 120 days after the close of each financial year. The final audited financial statements will be submitted within 120 days after the effective date of the final disbursement.</p>
<input checked="" type="checkbox"/>	Financial supervision of the operation	<p>The financial supervision plan will be developed based on the evaluations of the executing agency's fiduciary capacity and risk and will include on-site supervision visits and desk reviews, as well as the analysis and tracking of findings and recommendations from the audits of the program's annual financial statements.</p>



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_\_/23

Brazil. Loan \_\_\_\_/OC-BR to the Municipality of Recife. Urban Resilience and Revitalization Program in Socially and Environmentally Vulnerable Areas – ProMorar Recife

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Municipality of Recife, as Borrower, and with the Federal Republic of Brazil, as Guarantor, for the purpose of granting the former a financing aimed at cooperating in the execution of the Urban Resilience and Revitalization Program in Socially and Environmentally Vulnerable Areas – ProMorar Recife. Such financing will be in the amount of up to US\$260,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan and Non-reimbursable Financing Proposal.

(Adopted on \_\_\_\_ 2023)