BUILDING A PROJECT PIPELINE: ADVANCING JUST TRANSITION

ICLEI Local Governments for Sustainability

TAP BRASIL | Programa de Ações Transformadoras

MULTIDIMENSIONAL VULNERABILITY INFORMATION SYSTEM (SIVM) OF SÃO LUÍS: A TECHNOLOGICAL TOOL FOR MAPPING AND PREDICTIVE ANALYSIS OF THE MUNICIPALITY'S WEAKNESSES

PROJECT CITY
São Luiz, Maranhão - Brazil

SECTOR
Computer programming, consulting, and related activities

COST
USD 1.000.000,00

STAGE OF PROJECT CYCLE

| CONCEPT | PLAN* | IMPLEMENTATION | ONGOING | CLOSED* |

*complete

PROJECT OVERVIEW

São Luís, the capital of Maranhão, is a municipality with over one million inhabitants, located on an island along Brazil's northeastern coast. The city presents significant geographic and socioeconomic diversity, marked by a high concentration of families in situations of social vulnerability, worsened by factors such as settlements in risk areas, climate change, deficiencies in urban infrastructure, and insufficient public services. The high levels of social and environmental vulnerability across several regions of the capital highlight the need for integrated information systems that enable detailed mapping of urban weaknesses and support the development of more effective public policies.

The Multidimensional Vulnerability Information System (SIVM) of São Luís is a technological tool for mapping and predictive analysis of the municipality's socioeconomic, environmental, and urban weaknesses. The scope of the SIVM includes the creation of an integrated database, the definition of multidimensional vulnerability indicators, and the development of predictive analysis methodologies applied to the territory of São Luís. The solution will be made available as a web platform and mobile application, ensuring accessibility for managers, researchers, and civil society.

EQUITABLE AND PEOPLE-CENTERED DEVELOPMENT APPROACHES

The initiative seeks to transform public management in São Luís, making it more inclusive, sustainable, and evidence-based. The development of indicators that combine social, economic, and environmental dimensions, revealing patterns of vulnerability, brings greater security and dignity to the population. In addition, the accessible digital interfaces aim to promote transparency, social participation, and real-time monitoring.

SUPPORT FOR VULNERABLE COMMUNITIES

The system aims to anticipate risk scenarios based on data and multidimensional indicators that reveal inequalities and specific territorial vulnerabilities, contributing to the implementation of more effective public policies.

CO-BENEFITS

By integrating social, economic, and environmental data, the project strengthens the municipality's institutional capacity, enabling more accurate decision-making, efficient resource allocation, and greater urban resilience. Currently, there is a lack of integrated tools capable of mapping and predicting vulnerability situations, which hinders the formulation of effective public policies.

CLIMATE BENEFITS

- Spatial and predictive analysis will allow the anticipation of disaster scenarios, supporting mitigation and adaptation plans to address climate change.
- Climate adaptation and disaster prevention.

RESILIENCE BENEFITS

- Implementation of public policies that anticipate disaster scenarios, supporting mitigation and adaptation plans to climate change.

SOCIAL BENEFTIS

- Through detailed mapping of at-risk communities, it will be possible to direct social programs and investments to the most vulnerable territories, contributing to the reduction of territorial inequalities by guiding housing, health, education, and social assistance policies toward vulnerable communities.
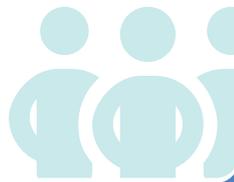
ECONOMIC BENEFITS

- Optimization of public resource use, as investments can be directed in a more strategic and preventive manner, reducing costs associated with disasters and emergencies.

RELATED SDGs

1 NO POVERTY

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

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