Road to Belem: The Local Way

Local Workshop/Consultation towards COP30
Paraná

Workshop and Consultation Report Template

October 14, 10:00a.m - 11:30a.m

1. Workshop/Consultation Details

- **Title:** Investing in Resilience: Resilience, SDGs, and Climate Emergency
- **Date & Time:** October 14, 10:00a.m - 11:30a.m
- **Location:**Curitiba/PR, Brazil (online)
- **Organizing Entity:** Civil Defense and Paraná Hub via SGDES
- **Facilitators:** Rafael Balestieri (State Secretariat of Culture), Eloy Casagrande (Federal University of Technology - Parana), Danyelle Stringari (Center for Studies and Research on Disasters CEPED/PR)
- **Participants:** Academia and State public sector

SGDES also contacted the Paraná State Environment Secretariat to collect data in order to formulate this report.

2. Workshop/Consultation Background & Objectives

Background

This workshop/consultation is part of the *Road to COP30: The Local Way*, a global process led by the Local2030 Coalition in the lead-up to the 30th UN Climate Change Conference (COP30), to be held in Belém, Brazil, in November 2025. COP30 has been framed as the "Implementation COP" — a *Mutirão* or collective effort to move from commitments to delivery — with cities and territories at the heart of the transition.

In Paraná, the state has established itself as a reference in integrating sustainability, resilience, and innovation into local governance structures. Its development priorities focus on strengthening community participation, promoting sustainable production models, and enhancing institutional capacity to respond to climate risks. Through

programs involving universities, civil defense agencies, cooperatives, and cultural institutions, Paraná is advancing a territorial approach that aligns social development with environmental responsibility and climate adaptation.

The workshop/consultation provided a platform for local actors to discuss climate solutions, share best practices, and contribute to a global synthesis of locally driven actions and tools that demonstrate the transformative impact of climate action at the local level.

Objectives

- Highlight local efforts in advancing climate action, emphasizing multi-actor and multi-level approaches.
- Showcase innovative local policies, practices, and successful case studies.
- Develop key messages and policy recommendations to ensure local priorities are reflected in COP30 outcomes, particularly in updated NDCs and climate finance frameworks.
- Create a report involving public sector actors, private institutions, and academia, aiming to compile data and produce a document that showcases successful and replicable initiatives related to climate change and related activities in the state of Paraná.

3. Summary of Discussions

Key Themes and Challenges Identified

UTFPR: Local resilience can be strengthened through nature-based solutions, including adaptation strategies, water and land management, biodiversity restoration, sustainable infrastructure, and clean air initiatives. Unplanned and irregular occupation of unsuitable areas, such as riverbanks and hillsides, exposes poorer populations to climate risks, while these communities often lack basic services and public support. According to the UN, eight out of ten people living in poverty face direct climate hazards like extreme heat, floods, droughts, or air pollution. In Paraná, over the past five years, the Civil Defense recorded 3,204 natural disaster incidents, and more than 750,000 people live in high-risk areas. With technical guidance and collaboration among academia, the third sector, private actors, and local communities, sustainable and low-cost nature-based solutions can be implemented. These initiatives require direct community involvement

and effective education, communication, and precautionary measures to reduce risks and enhance long-term resilience.

***SEEC*:** Traditional “passive preservation,” based on strict climate control, conflicts with sustainability, as maintaining stable temperature and humidity 24/7 consumes massive energy and makes many museums major carbon emitters. Collections are vulnerable to extreme humidity, temperature fluctuations, and severe weather events such as floods, wildfires, and storms. This project uses multilevel governance and the CHAMP framework to show how coordinated climate action can connect national policies to community-level outcomes, with museums serving as microcosms. At the local level, museums are reclassified as essential public infrastructure for community resilience, enabling access to urban adaptation funds alongside schools and health centers. Challenges include internal resistance from staff, curatorial difficulties in linking collections to climate topics, and limited funding for climate-related activities. Despite this, the project demonstrates a major reinvention of museums: reducing carbon footprints, valuing local collections, engaging communities, updating emergency plans, and transforming museums into trusted spaces for climate education and urgent action.

SISDC: The Multi-level governance approach and the CHAMP initiative demonstrate how collaboration across community, local, regional, and national levels drives systemic, coordinated, and ambitious climate action aligned with COP30 priorities. The SISDC system strengthens civil protection and disaster risk management by centralizing and organizing data to enhance local management capacity, integrating institutions to improve information quality and system performance, monitoring risks and issuing alerts with reliable meteorological data, recording mapped risk areas to support preparedness and preventive planning, ensuring continuity despite municipal administration changes through permanent information records, and facilitating communication between state and municipal agents. Political support for these actions remains uncertain, requiring continuous efforts to motivate and promote their effective implementation.

REDESASTRE: Local Resilience and Nature-Based Solutions focus on enhancing territorial resilience through adaptation, water and land management, biodiversity restoration, sustainable infrastructure, or clean air initiatives. While all these topics are of interest to REDESASTRE, Multilevel Governance and the Coalition for High Ambition Multilevel Partnerships most closely align with the core initiatives proposed by the institutions involved. Brazil suffers significant losses due to disasters, which directly impact its development. As a multidisciplinary area that does not fall within a single

category of knowledge, disaster risk reduction requires a systemic societal approach. One of Brazil's main challenges is to establish networks of researchers and institutions to foster collaborative actions among professionals from diverse fields involved in this area. As a signatory to the Sendai Framework, Brazil must encourage dialogue between strategic sectors to promote and implement its lines of action. However, a lack of dialogue still persists among certain institutions, governments, and leaderships that are directly or indirectly involved in disaster risk reduction.

SEDEST: Greenhouse gas emissions surveys at the state level are complex, and voluntary reporting by organizations helps quantify emissions and track mitigation efforts. The Paraná Climate Seal, under the Secretariat for Sustainable Development, promotes ESG certifications, SDG-aligned goals, and greenhouse gas inventories, fostering multilevel collaboration aligned with COP30 priorities. Initial challenges include quantifying emissions and identifying regions most affected by climate change due to limited municipal data. The program is expanding, aiming for broader participation from companies, public agencies, and municipalities, and plans to implement a dedicated platform for registration and reporting. In 2025, municipal registrations increased 154% and total registrations by 70% compared to 2024. Effective outreach via social media, phone, and email highlighted areas for improving registration processes, data collection, and results dissemination.

Sicredi: The program replaces anaerobic effluent treatment for confined animals with aerobic technology in impermeable lagoons, using propeller aerators and microorganisms to accelerate organic matter degradation, preventing greenhouse gas emissions, especially methane. This improves environmental quality, animal management, and reduces odors, larvae, flies, and diseases that can cause animal deaths and production losses. Social relations between rural neighbors are improved by eliminating conflicts caused by odors from effluent application. Understanding animal treatment variables and production cycles is essential, as factors such as climate, medication, and hygiene practices affect waste characteristics, requiring constant adjustments in microorganism application and lagoon aeration. Inadequate management of animal effluent on small farms using impermeable anaerobic lagoons generates GHGs, odors, pathogens, and environmental and health impacts. High costs of alternatives like biodigesters make sustainable solutions unaffordable, exacerbating environmental, social, and economic problems for small pig and cattle producers in Paraná and Santa Catarina. The program demonstrates how decentralized climate

finance and local access can enable equitable and effective climate action for rural communities and enterprises.

Best Practices & Successful Approaches

UTFPR: The project was implemented in three main stages to strengthen local resilience and community engagement. Firstly, territory recognition was carried out through *Jane's Walks*, neighborhood walking tours with researchers and community leaders inspired by Jane Jacobs' methodology, allowing residents to observe and discuss local issues affecting quality of life and safety. Afterwards, Social Cartography was used to map community and territorial problems directly with residents. Physical maps were marked by participants, then georeferenced and digitized for comparison with official government data, improving accuracy and planning. Then, information campaigns, educational materials, and nature-based solutions were developed from community-collected data. Engaging with local associations, waste pickers' cooperatives, and schools fostered "popular science" communication, ensuring solutions reflected local knowledge and priorities. The project emphasized empowering local actors and building capacities, aligning community actions with broader climate strategies. Direct involvement of the population was essential, as residents best understand their territory and its challenges. Effective communication, education, and technical training prepared communities to face existing and future climate risks, promoting sustainable, inclusive, and long-term resilience.

***SEEC*:** This project represents a major opportunity for museums to reinvent themselves, based on three main pillars. We are reducing carbon footprints through solar energy assessments and smarter, more flexible climate control systems, while valuing local collections and fostering regional collaborations. Risk mapping, updated emergency plans, and mass digitization of collections are already underway to protect the most vulnerable assets.

Communication is a key strength, as museums are trusted spaces capable of turning complex climate data into engaging, human stories. Our aim is to become centers of community dialogue, educating and involving the public in the climate agenda. Over the past five months, practical actions have been carried out to mitigate potential collection losses and ensure visitor safety in the museums where local assessments were implemented.

SISDC: The SISDC and the protocols for using and applying the available information involve diverse actors and promote coordinated governance based on national guidelines. CEDEC has provided a system that guides essential actions, enabling proactive performance even by local professionals with limited experience, resulting in integrated, multilevel, and systemic action. Since 2005, the system has recorded all disaster occurrences in the state, and since 2013, it has tracked all contingency plans and their update frequency. It streamlines information flow and increases process efficiency, with a 24/7 on-call structure that allows immediate support for serious situations. Humanitarian aid deliveries have also been recorded since 2005 and are now directly linked to the incidents, providing a comprehensive overview of information. All issued alerts are stored, making the system both operational and managerial. Continuity of use is ensured by regional hubs, while municipalities, as end-users, are responsible for entering and maintaining the data.

REDESASTRE: Based on the principle that addressing the impacts of the climate emergency is a shared responsibility and that effective collaboration requires multilevel coordination, REDESASTRE has fostered dialogue among technical and scientific leaders to advance the national agenda through concrete actions. Since its creation in 2014, the network has brought together more than 20 institutions and promoted scientific events such as the 1st Brazilian Congress on Risk and Disaster Reduction (2016) and the 2018 State Seminar on Disaster Risk Reduction, involving universities, researchers, civil servants, security forces, specialized professionals, NGOs, and political actors. These initiatives have facilitated experience exchange, the development of concrete actions, and new international partnerships, including the hosting of the VI Congress of the Latin American Risk Analysis Society (SRA-LA 2025) in Curitiba. Events promoted through REDESASTRE have engaged over 900 participants, offered more than 30 mini-courses, and resulted in the presentation of 306 academic papers, indirectly influencing over 700 participants, 10 courses, and 130 academic papers at international events. A formal international expansion of the network is planned, with ongoing negotiations to include research centers, universities, and international organizations.

SEDEST: Organizations register on the Secretariat's official website using forms and spreadsheets, declaring activities and emissions calculated from electricity use, fuel consumption, or their greenhouse gas inventories. Registrations are open for two to three months and reviewed by the coordination team, after which a dashboard is published online. Data is compiled into interactive maps showing municipalities with the

highest participation and emission/removal amounts according to the GHG Protocol scopes. Participation is expected to grow among private companies, public agencies, and municipalities, enhancing the completeness of the State Public Registry of Greenhouse Gas Emissions and supporting state policies and targeted action. The Climate Seal is also expected to have its own platform for registration and reporting. In 2025, municipal registrations increased 154% and total registrations by 70% compared to 2024.

Sicredi: The program conducts local public meetings to address climate emergencies, promote low-carbon technologies, and strengthen social and environmental responsibility across the animal production and value chain. Agricultural, farming, and environmental technicians receive training on climate action, while meetings with government, cooperative, and financial systems present the program and its social and environmental benefits. New rural producers are evaluated for inclusion in the Sicredi Umbrella Program Methane Avoided in Animal Effluents. Governance structures for carbon programs are coordinated within the Sicredi System and Sicredi Central. Engagement with city halls, environmental agencies, companies, and media outlets raises awareness about effluent management challenges, low-carbon solutions, and program benefits. Participating farmers have improved management practices, higher productivity, and better product quality in their cooperatives. Social conflicts with neighbors have decreased due to reduced flies and odors. Local farmers are seeking financing to implement aerobic effluent treatment technology. In the 24 months since implementation, the program has reduced approximately 40,000 tCO_2e and 1,430 tons of methane.

4. Key Messages & Recommendations

UTFPR: The process clearly demonstrated that residents are highly aware of the challenges in their territory and are willing to participate actively in identifying them, which leads to stronger engagement in developing solutions. Community listening not only fosters a sense of ownership and belonging but also helps avoid mistakes by grounding actions in lived reality. Moreover, involving key institutions such as Civil Defense reinforces a shift from a reactive, post-disaster approach to one focused on prevention and resilience.

***SEEC*:** The project is not just about museums, it demonstrates how to implement multilevel climate governance in practice, with museums serving as the first visible protagonists through the capacity building of local actors. Using a “soft” sector like

Culture to tackle a “hard” problem like Climate highlights that the crisis is fundamentally cultural, rooted in values and narratives. Museums, as guardians of memory and storytellers, are ideal for implementing change and communicating it to the public, generating social buy-in. This model can be applied to any public facility, turning local challenges into contributions to national climate goals.

SISDC: SISDC was recognized by the UN in 2015 as the best internal management system in the Americas. It operates both as an operational and management system, with adaptability as a key feature. The system has become a reference for other states in Brazil, with ongoing discussions regarding its replication. Importantly, it supports process improvement and innovation, undergoing constant incremental upgrades based on continuous experience gains.

REDESASTRE: It functioned effectively as long as the multilateral efforts of the institutions involved were recognized. However, changes in leadership, personnel, and political guidelines tend to influence the results achieved over time, both positively and negatively.

SEDEST: One initial challenge is quantifying greenhouse gas emissions and identifying the most affected regions due to limited municipal data. Outreach via social media, phone, and email was effective, highlighting the need to improve registration, data collection, calculation methods, and results dissemination.

Sicredi: The program has led to significant improvements on participating rural properties, including reduced odors, larvae, flies, and contamination of soil and water sources, as well as lower animal mortality. Production costs have decreased due to reduced disease incidence and lower medication use. Social conflicts have diminished because treated effluents from the aerobic system no longer cause odor dispersion, benefiting neighbors and the local community. Agricultural productivity has increased on soils where treated effluents are applied, and the use of photovoltaic energy for aerators and other farm activities has reduced management costs. Administrative practices have improved as producers are required to submit monthly activity reports. Nitrogen fertilizer use has decreased, further lowering agricultural costs. Producers have become more aware of socio-environmental responsibilities, and financial opportunities have improved the economic flow of the properties. Continuous monitoring is needed due to variations in swine operations, which occur in 110-day batches, requiring adjustments in technology implementation.

- **Policy Recommendations:**

Within the framework of the Paraná HUB under SGDES, the experiences analyzed highlight practical ways to strengthen climate governance, scale up local action, and foster just and inclusive transitions.

UTFPR's work demonstrates that community participation is essential for effective and legitimate climate responses. Engaging residents in identifying territorial challenges not only increases awareness but also ensures that actions are realistic and sustainable. SEEC and SISDC show that coordinated governance across local, state, and national levels improves policy coherence and implementation capacity. Strengthening these mechanisms within the Paraná HUB can help standardize processes, share data, and enhance institutional learning.

Improving data quality and access remains a key priority. The SEDEST case shows that reliable monitoring of emissions and climate impacts depends on better data collection and management tools at the municipal level. Investing in these systems will allow more accurate decision-making and transparent reporting.

Sustainable finance must also be expanded. Sicredi's model illustrates that local and cooperative financing can make sustainable practices economically viable, creating long-term value for both producers and communities. Integrating similar approaches across sectors will support broader climate and SDG goals.

Cultural and educational engagement, as seen in SEEC's museum initiative, can also drive behavioral change and public understanding of climate challenges. Finally, the REDESASTRE experience highlights the importance of maintaining institutional continuity and preserving coordination networks beyond political cycles.

Together, these lessons reinforce the Paraná HUB's capacity to lead multi-level climate governance and transform global sustainability targets into effective local action.

- **Call to Action:**

Aligned with the UNFCCC and Local2030 agendas, the Paraná HUB and its partners commit to advancing local climate action as a key driver of SDG implementation. The next steps focus on consolidating cooperation among state and municipal governments,

universities, civil defense, cooperatives, and cultural institutions to expand the reach and impact of existing initiatives.

5. Next Steps & Follow-Up Actions

As part of the Paraná HUB's continuous effort to strengthen SDG localization and align local initiatives with global climate commitments, the follow-up actions identified during the consultation process outline both immediate and long-term priorities. These actions will ensure that ongoing projects evolve coherently under a shared monitoring and governance framework coordinated by SGDES.

UTFPR will renew its project through 2027, supported by Fundação Araucária, maintaining collaboration with the Civil Defense of Curitiba. The next phase will expand the use of Jane's Walk and Social Cartography methodologies to other vulnerable communities and launch the *InovaClima Mobile Hub*, a mobile education unit that brings participatory climate education to schools and neighborhood associations. SEEC will advance with a participatory diagnostic process led by local cultural agents, identifying museums, memory houses, and cultural spaces to guide technical evaluations and future interventions in the cultural and environmental fields.

SISDC will continue refining its adaptive management system, allowing municipalities to tailor civil defense programs based on local data, while REDESASTRE will move forward with the international expansion of its network, incorporating universities, research centers, and global partners dedicated to resilience and disaster governance. SEDEST will strengthen the State Public Registry of Greenhouse Gas Emissions by expanding participation among companies, public agencies, and municipalities, and will develop a dedicated digital platform for the *Climate Seal (Selo Clima)* to improve reporting and transparency. Sicredi will operationalize new financing lines through Central Sicredi PR/SP/RJ and its 31 affiliated cooperatives, supporting rural producers and other stakeholders in adopting climate mitigation technologies and participating in carbon-related initiatives.

The implementation of these actions involves a coordinated, multi-actor approach. UTFPR and SEEC will lead educational and cultural engagement efforts, while SISDC and REDESASTRE will oversee institutional coordination and network expansion. SEDEST will manage data governance and emissions monitoring, and Sicredi will lead the financial mechanisms to ensure sustained funding for local climate action. The

Paraná HUB, within SGDES, will function as the integrating platform, aligning all institutional contributions with the state's broader climate and SDG strategies.

Together, these initiatives demonstrate how Paraná translates the Sustainable Development Goals into measurable and localized actions—establishing a model of territorial innovation that goes hand in hand with global debates and movements, thinking about adaptation and improvements in the face of the challenges posed by climate change. Through the workshop, new connections are being established so that state systems and actors can work together, connecting their efforts with one another.

6. Annexes

- **Workshop/Consultation Agenda**

https://www.instagram.com/p/DPwuYd-kltu/?igsh=NHQ1enBqdW05NmM5

- **Photos and Videos from the Workshop/Consultation**

photos

- **List of Participants**

It was not possible to get a list of people who attended the event because it was streamed on three channels at the same time: YouTube, Zoom, and Instagram.

The average total audience was 80 participants.

- **Presentations & Supporting Documents**

Click here to access

Date of Report: October 30th

For inquiries, contact:

Maria Eduarda Bortoni

mariabortoni.sgdes@ccivil.pr.gov.br

+55 41 99226-9792