



Making Santa Marta Home: Fostering Community Ownership and Environmental Stewardship in Vila Santa Marta, Brazil

GLOBAL IMPACT ARTICLE SERIES

Vila Santa Marta is a community in São Leopoldo, Brazil, which faces a number of socio-environmental challenges. These challenges include trash build up in public spaces, difficulties with waste management infrastructure, inadequate water and sewage systems that can lead to flooding, and deteriorating road infrastructure. The local government employs a municipal budgeting strategy that provides the public with the opportunity to decide how to allocate resources and determine the city's public budget allocation for specific initiatives and capital improvements. However, issues of poor communication have historically led to limited involvement of Santa Marta residents in the participatory budgeting process.

An interdisciplinary team of graduate students, supported by a Dow Distinguished Award for Interdisciplinary Sustainability and a Ford College Community Challenge grant assessed the Santa Marta community needs and designed strategies that addressed several key community goals. Following an intensive field research trip in 2015, goals and strategies based on research findings were compiled into a guidebook. In May 2016, the team returned to Santa Marta to present the guidebook and help implement community interventions.

CHALLENGES OF INFORMALITY

São Leopoldo includes both formal and informal settlements. Santa Marta is one of the poorest settlements in the city, and many residents do not have land titles. The team found that the area's zoning designation of AEIS (Special Zones of Social Interest) is used as a policy tool to protect low-income residents from eviction. However, this policy does not automatically mean that all low-income residents are recognized by the municipal system. This suggests that Santa Marta's low income residents are not provided with well-developed or permanent infrastructure or services that regularized communities have access to, such as paved roads, and sewer and water systems.

COMMUNITY ACTION

Santa Marta is largely a community of young people, but it already has a history of community organizing in order to address the environmental and social problems they face. These efforts have been led by the teachers and students at the Santa Marta School along with Com-Vida, a federally funded environmental awareness program. The program is student-led and aims to foster sustainable communities by promoting partnerships between schools, community organizations, and universities. Launched in 2013, Santa Marta's Com-Vida program is the region's flagship program with specific goals to decrease community violence and trash dumping.

The Santa Marta Neighborhood Association acts as a gathering place in the community, where residents can meet and discuss community concerns. One of the major roles of the association

is to help Santa Marta residents increase effective communication with the São Leopoldo municipal government.

For example, the Neighborhood Association has facilitated increasing community participation in the participatory budget process, and filed service and infrastructure improvements with the government on behalf of the residents.

Leaders of the Santa Marta Neighborhood Association, and the Santa Marta School and Com-Vida program expressed the need for environmental, infrastructural, and social interventions to address the lack of effective waste management and public spaces, and methods to create a more positive community identity.



INITIAL ASSESSMENT

Responding to the needs communicated by the Santa Marta community, the U-M student team assessed the community's needs and identified strategies to improve community ownership and environmental stewardship, through the facilitation of community participation activities. In May 2015, the team identified a set of key community interventions, based on community input:

- Create a public campaign to build community pride and increase awareness of service and laws;
- Improve local and municipal waste management;
- Increase monitoring and enforcement to deter incorrect trash disposal;
- Use community mapping to aid understanding of on-the-ground conditions and needs;
- Increase community involvement in the participatory budgeting process; and,
- Consider how public spaces may enhance the community and support the previous recommendations.

PROJECT IMPLEMENTATION

Based on their initial assessment of the community's needs, the U-M team developed further recommendations for the community. In May 2016, they returned to Santa Marta to present and implement the following additional recommendations:

- Design solutions for physical upgrades such as illuminated community entrance signs, improved storm water drainage through rain gardens, improved road quality, disability access and flood control for a community park, and a multi-purpose recreation court.
- Partner with Loveland Technologies on a community mapping pilot project that both collects valuable data for future community upgrades and assists in teaching valuable mapping and technical skills.
- Create a mesh network to increase Internet access in the community. Mesh networks wirelessly connect large areas to the Internet at minimal cost, requiring just one access point; and a series of routers that connect other access points.

CONCLUSION

Along with the input from Santa Marta residents and Com-Vida, the U-M team outlined a vision and provided recommendations that addressed key community issues, while also strengthening partnership between the community and the municipality. Within the last year, the Santa Marta community with the assistance of the municipality was successful in implementing several projects, including implementing new signage to deter trash dumping, and displaying additional signs highlighting community pride. Additionally, the bridge serving as the entryway into Santa Marta was renovated, making it both safer and more welcoming. Finally, the community mesh network is expected to be extended throughout the community and provide better wireless access for many more residents.

Working closely with the municipal departments and Santa Marta community leaders, mobilizing initiatives for infrastructure and public service improvements is crucial for

improving the environmental sustainability of these projects. Further collaboration between these key stakeholders involves rethinking current urban policies and proposing modifications that ensure housing and environmental concerns are more efficiently integrated into the process. This, in turn, will help with prioritizing infrastructure projects and promote efficient delivery of public services. Through this project, the U-M team anticipates that strategies implemented will better protect and enhance low-income neighborhoods by incorporating sustainable housing development practices that also protect the environment.

U-M FACULTY MENTORS

Assistant Professor Ana Paula Pimental-Walker, University of Michigan, Taubman College of Architecture and Urban Planning (TCAUP), PhD, MUP, JD

U-M STUDENT TEAM MEMBERS

- Jamilla Afandi, Masters Student, TCAUP
- Aayat Ali, Masters Student, TCAUP and School of Social Work
- Stephanie Gerretsen, Masters Student, TCAUP and School of Kinesiology
- Alexis Gomez, Masters Student, TCAUP and School of Natural Resources and Environment

PARTNER ORGANIZATIONS & ADVISORY GROUP

- Marcia Kehl & Sandr Grohe, Santa Marta Municipal School, Brazil
- Municipal Departments of Education and Environment, Brazil
- Samantha Farr, Mabel Kessler, Alexandra Markiewicz, and Kelly Richardson, TCAUP ALUM

Made possible by The Dow Chemical Company, the Dow Sustainability Fellows Program at the University of Michigan supports full-time graduate students and postdoctoral scholars at the university who are committed to finding interdisciplinary, actionable, and meaningful sustainability solutions on local-to-global scales. We believe that diversity is key to individual empowerment, and the advancement of sustainability knowledge, learning and leadership. The program prepares future sustainability leaders to make a positive difference in organizations worldwide.