



Design, Supply, and Installation of the Goldsborough and Santa Cruz Water Treatment Plant

Overview

The Ministry of Public Utilities (MPU) and the Water and Sewerage Authority (WASA) of Trinidad and Tobago, supported by the Inter-American Development Bank (IDB), initiated a project to integrate sustainability into the procurement processes for the Goldsborough and Santa Cruz Water Treatment Plants in Trinidad and Tobago. The project aimed to improve water supply efficiency, quality, sustainability, and resilience. This case study highlights the opportunities for enhancing local labor force participation, gender equality, and environmental sustainability. Despite challenges like resistance to regulatory changes and misconceptions about cost implications, the project achieved significant milestones, ensuring compliance with sustainable criteria and fostering local and gender-inclusive employment.

Background

Trinidad and Tobago faced challenges in maintaining a reliable and sustainable water supply, particularly in Tobago. Traditional procurement processes often did not incorporate sustainability criteria, leading to missed opportunities for improving environmental outcomes and promoting local and gender-inclusive employment.

Country / Region

Trinidad and Tobago, Santa Cruz

Case study project name

Design, Supply, and Installation of the Goldsborough and Santa Cruz Water Treatment Plant

Sector Category



Water and Sanitation

Thematic Area



Environment



Social Impact

Project executing agency and Implementing agency

- Inter-American Development Bank (IDB)
- Ministry of Public Utilities (MPU)
- Water and Sewerage Authority (WASA)

Project Objectives

- To improve the efficiency, quality, sustainability, and resilience of the potable water supply and water security in Trinidad and Tobago.

Process: Integrating Sustainability into the Procurement Planning

Opportunities and Champions: The project presented an opportunity to promote local labor force participation and gender equality while improving environmental sustainability. The MPU and WASA, supported by the IDB, championed these initiatives by incorporating specific sustainability criteria into the procurement documents.



Intervention Point: Sustainability and gender considerations were integrated at the design and bidding stages of the procurement process. The procurement method used was International Competitive Bidding with a two-envelope process.

Risks and Mitigation: Risks included potential non-compliance with sustainability criteria and resistance from stakeholders due to perceived increased costs. These were mitigated by providing clear guidelines, demonstrating the benefits of sustainable procurement, and ensuring that sustainability criteria did not lead to higher costs.

Evaluating Supplier Responses: Supplier evaluations prioritized those demonstrating compliance with sustainability criteria, including the use of environmentally friendly technologies, energy-saving materials, and robust, easy-to-maintain construction solutions. Suppliers were also required to demonstrate adherence to labor force participation requirements, ensuring local and gender-inclusive employment.

The following pass/fail requirements were incorporated: 50% percent less in the labor force of 50% of Trinidadians and Tobagonians workers or 15% of women, a reduction of 0.1 % in the corresponding IPC payment will be made.

The following sustainability criteria were required to be used in the design:

- Technologies, construction materials and equipment that contribute to energy saving, are friendly to the environment, has an adequate carbon footprint, easy to replace and durable.
- Simple and robust construction solutions must be considered, easy to maintain, that attend to safety and whose sustainability is not expensive.
- Efforts should be made in the design to minimize energy consumption.
- Where possible, green areas will be used to reduce the heat effect.

Achievements & Impact

Quantitative:

- **KPI:** The water treatment plants are designed to produce 9,092.18 m³/day and 20,457 m³/day, contributing significantly to the water supply in Trinidad and Tobago.
- **Participation:** 50% of the labor force involved in the works were required to be Trinidadians and Tobagonians, and 15% were required to be women.

Qualitative:

- Enhanced local economic development through job creation and skills development, particularly for women.
- Improved environmental sustainability through the use of energy-efficient and environmentally friendly materials and technologies.

Organization Outcomes:

- The project supported Trinidad and Tobago's SDGs by promoting clean water and sanitation (SDG 6), gender equality (SDG 5), and sustainable cities and communities (SDG 11).

Challenges and Success Factors

Obstacles:

- **Resistance to Change:** Some stakeholders were resistant to integrating sustainability criteria, fearing increased costs.
- **Misconceptions:** There was a belief that sustainable procurement would lead to more expensive projects.

Approaches to Overcome:

- **Training and Awareness:** Conducting training for procurement officers and stakeholders on the benefits of sustainable procurement.
- **Evidence-Based Approach:** Demonstrating through pilot projects and cost analyses that sustainable procurement can be cost-neutral or even cost-saving.

Lessons Learned

Success Factors: 1) Strong leadership and commitment from MPU, WASA, the National Insurance Property Development Company Limited (NIPDEC) and IDB. 2) Effective training and capacity building for stakeholders. 3) Clear and enforceable sustainability criteria in procurement documents.

Failure Points and Lessons: 1) Initial resistance highlighted the need for continuous engagement and education. 2) The importance of aligning sustainability initiatives with local market capabilities to ensure feasibility and compliance. 3) There was a notable absence of data on women's participation in the infrastructure sector. This lack of information made it difficult to assess the current state of gender inclusion

accurately. To address gender inclusion effectively, it is essential to collect comprehensive data on women's participation in the infrastructure sector. This data will help in understanding the current landscape and identifying areas that require intervention. 4) Women have only recently begun to enter the infrastructure sector in Trinidad. Consequently, there is a limited pool of women with substantial experience in this field. There is a need for programs and initiatives that support and mentor women as they build their careers. Providing training, networking opportunities, and career development resources can help bridge the experience gap.



Conclusion

This case study demonstrates the potential of integrating sustainability into public procurement processes, providing valuable insights for similar projects aiming to achieve social, economic, and environmental benefits alongside infrastructure development. Institutions should advocate for policies that promote gender inclusion and create an enabling environment for women in the infrastructure sector. This includes encouraging companies to adopt gender-inclusive practices and supporting initiatives that aim to increase women's participation.