

# FELICITY - Changing the Paradigm of Municipal Solid Waste Management in Naucalpan, Mexico



## Project Profile



### Challenge

Between 1990 and 2019, the waste sector led emissions growth across Mexico, with an increase of 71%. To overcome this, Mexico committed to a reduction of greenhouse gases in the sector of 28% by 2030. In the city of Naucalpan, waste from households and industry is collected and disposed into landfills without proper treatment, which contributes not only to high greenhouse gas emissions, but also produces potential environmental pollution and health hazards for inhabitants.



### Support

FELICITY provided capacity development and advisory services to Naucalpan in order to improve its project “Waste to Energy Management System”. The project seeks a comprehensive management of urban solid waste from the municipality of Naucalpan. This will be accomplished through the separation and recovery of inorganic waste and the use of organic waste for energy generation through biogas, while aiming to reduce the impact on the environment and risks to the population.

The collected waste will be separated and sent to recycling distribution channels, thereby contributing to a circular economy in Naucalpan.



### In Detail

FELICITY supported Naucalpan in elaborating the environmental and social impact assessments and the feasibility of biogas generation. FELICITY also contributed to the financial, technical and procurement processes and proposed transparent and integrity procurement planning processes for the required works.

More than 30 events and workshops on capacity building were organised as part of FELICITY’s support, which emphasised skill enhancement on climate change, sustainable infrastructure, and project management.

It is expected that all activities under the project “Waste to Energy Management System” in Naucalpan will be financed through a public private partnership, involving the national development bank BANOBRAS as the public counterpart.

**FELICITY** (Financing Energy for Low carbon Investment – Cities Advisory Facility) is a project preparation facility implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and financed by the German International Climate Initiative (IKI) of the Federal Ministry for Economic Affairs and Climate Action (BMWK), between 2017-2022.

FELICITY works in close cooperation with the European Investment Bank (EIB) to support urban investment projects that significantly contribute to sustainable development and climate change mitigation. FELICITY offers technical assistance to cities in designing and structuring their infrastructure investment projects. FELICITY’s support to cities has the potential to leverage EUR 541 million.

This is achieved through low-carbon project pipelining and preparation; capacity development for cities and national intermediaries such as National Development Banks (NDBs); policy recommendations on specific national framework conditions; and the development of knowledge networks for climate finance projects.



### Partners

The technical studies and capacity development were carried out in cooperation with the Municipal Presidency, supported by both Secretaries of the Government and Public Works. Implementing partners also include the Ministry of Finance and the BANOBRAS.

Additionally, FELICITY supported the City of Naucalpan in setting-up a Project Implementation Unit to ensure coherent preparation, implementation, and maintenance of the project. With FELICITY’s support, the city also organised the Naucalpan International Forum for Urban Solid Waste in 2019.



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Naucalpan's project success has been the coordination of several stakeholders in this infrastructure project within a circular economy and low carbon perspective. It is thrilling to see how the project has overcome the challenges little by little to become a remarkable and referential project. All eyes are on Naucalpan!

Roger Peniche  
(Climate Advisor to the Government of Naucalpan)

## Outlook and Scaling

Naucalpan serves as a guide for comparable waste projects with the city receiving ongoing knowledge sharing requests in the project preparation process from various municipalities with similar challenges. For this, the city developed guides to strengthen project preparation which will be utilised across Mexico and by the Ministry of Environment (SEMARNAT).

Finally, FONADIN is analysing the possibility to implement a FELICITY inspired national programme for urban solid waste, using their own resources and targeting the upscaling potential of the project.



## Project in Numbers

- Project investments totalling **EUR 55 million**.
- Encompassing **3 Combined Heat and Power Units** with capacities of **7.9 MW** (electric) and **6.7 MW** (thermal).
- Mitigation potential of **77.000 tCO2 eq per year**.
- The implementation of the projects will create between **60 and 80 formal jobs**.

## FELICITY has Supported These Achievements:

### Enabling Access to Climate Finance

In 2020, the project of Naucalpan was included in the pipeline for economic reactivation by BANOBRAS. FONADIN, the national infrastructure fund managed by BANOBRAS, along with the Mexican Ministry of Finance, has committed a grant totalling EUR 16 million covering 30% of the investment volume. The remaining 70% shall be covered by a private partner.

### Enhancing Bankability

The project's documentation was elaborated to comply with financing requirements of national and international financing institutions. The project is published in the Mexico's platform for infrastructure projects and in the international project preparation tool SOURCE.

### Project Preparation Training

A "Project Preparation Readiness Training Program" was developed for project promoters in Mexico and organized by FELICITY in 2020 alongside the Cities Climate Finance Leadership Alliance (CCFLA), and other partners. The multi-stakeholder training series attracted more than 2.000 participants from 18 countries.

### Knowledge Sharing

Development of the methodology for "Preparation and Socio-Economic Assessment of Integrated Municipal Solid Waste Management Projects" was developed in cooperation with the Ministries of Finance and Environment. Through FELICITY's facilitation, Naucalpan's experience was also presented at COP 27, in an event organised by the Climate and Clean Air Coalition.

### Contributing to Green Recovery

A spin-off of FELICITY's cooperation with BANOBRAS has resulted in a triangular cooperation initiative between Germany, Ecuador, and Mexico. The project Re-SET ("Recovery-Sustainability of Economies in Transition") aims to facilitate learning between the national development banks of Mexico (BANOBRAS) and Ecuador (BDE) on facilitating Green and Sustainable Recovery and acting to make their portfolios greener.

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