



# Project: BIOTEXTIL - Chemical Remediation of the Lerma River

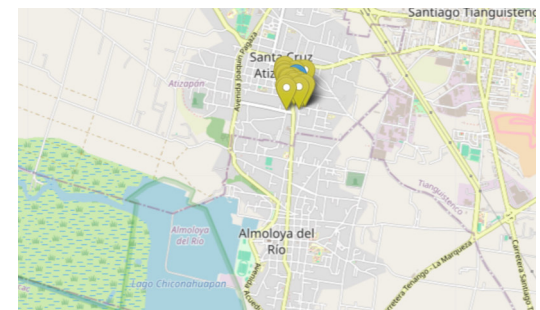
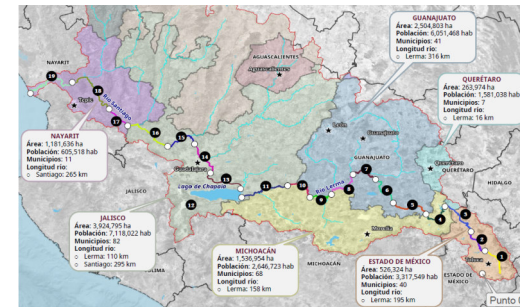
## Rotary Club: Toluca Centro Histórico

District Rotary Foundation Committee 4170 |  
Period: 2023 -2026

# Community Needs



- The restoration of the Lerma River is included in the National development plan of the Mexican government 2025-2030
- The town of Santa Maria Atizapan is 5 km away from where the Lerma River originates. One of the main sources of employment is the textile industry - small, family-run textile economic units (27%)
- The community is now more concerned with having an income to live on; for more than 30 years their source of income has been textiles. The community is aware of the damage to health, flora and fauna caused by the chemicals (dyes) in the water discarded in the textile processes (economic units), but they also believe that the amount of contaminated water is so small that it dilutes and dissolves in the river water



# Global Grants - Area of Focus

## Water, Sanitation, and Hygiene

- The project aims to mitigate the long-standing pollution of the Lerma River, caused by chemical discharges by installing and operating modular ecotextile biofilters, designed as a technically and economically viable solution for the sustainability of the sector.
- Implement in 18 economical units the treatment biofilters systems, based on low-cost technology and agro-industrial byproducts, will reduce the dye load in wastewater by 70% to 90% before discharge, in compliance with applicable environmental regulations.
- Assure all laundries use the dry cleaning process for denim (with fibers impregnated with the chemical that are washed in an eco-friendly washing machine), this is helping to save around 85% of the water.



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# Sustainability

- This technological innovation not only seeks to mitigate environmental damage, but also to protect the work environment and economic stability of more than 750 direct employees in the sector. Furthermore, the project is projected to indirectly benefit 8,000 residents.
- The installation of biofilter system will be founded for three parts: community, government and Rotary, the owners of economic unit will give 30% of cost installation of biofilters and give maintenance, the government will provide 30% of the cost and assure the technical training.
- The University UAM Lerma will continue in improve and support the community to optimize the system for aggrement of three years.

# Budget

**UNITE  
FOR  
GOOD**

CONCEPT	UNIDAD	COST UNIT MEXICAN PESOS	TOTAL MEXICAN PESOS	TOTAL USD
EQUIPMENT & INSTALATION	18	130,000	\$ 2,340,000	\$ 130,000
ANALYSIS WATER	1	115,000	\$ 115,000	\$ 6,389
	0	0	0	0
	0	0	0	0
<b>Total amount</b>			<b>\$ 2,455,000.00</b>	<b>\$ 136,388.89</b>
		<b>ROTARY 1/3</b>	<b>\$ 818,333.33</b>	<b>\$ 45,462.96</b>







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