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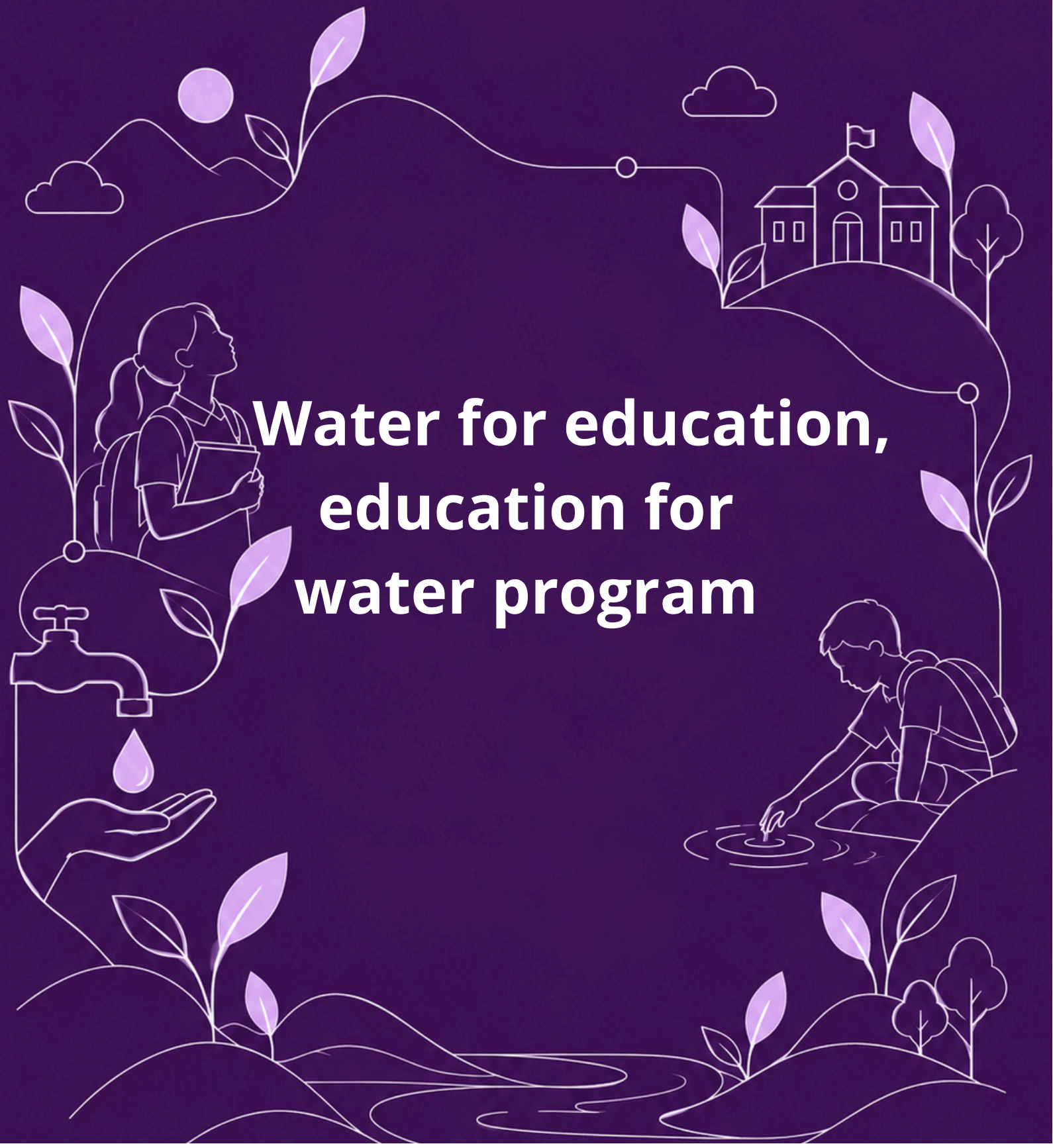

Water for education, education for water program

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Fundación Grupo epm

1. About the Organization

The EPM Group Foundation is a nonprofit organization, established in 2000, that contributes to a harmonious life for a better world through programs and projects in education, culture, and social and environmental management, aligned with the EPM Group's strategy.

2. The Case Study

Project Name	Water for Education, Education for Water
Sector	Water and Sanitation (Environment), Education, and Rural Development
Location	Rural educational institutions in Colombia
Duration	Ongoing since 2011
Partners	More than 50 strategic partners, including public sector entities, environmental authorities, companies, foundations, and social organizations. Notable partners include Grupo EPM, the Antioquia Governor's Office, Ecopetrol, Cornare, Corantioquia, Coca-Cola FEMSA, Fundación Grupo Social, Fundación Corona, Fundación Celsia, and Fundación Luker.
Financial Instrument	Social investment through the Grupo EPM Foundation's own resources, co-financing, and resource mobilization via public-private and inter-institutional partnerships.
Mobilized Capital	More than COP 37 billions
SDGs Addressed	SDG 6: Clean Water and Sanitation SDG 4: Quality education SDG 3: Good Health and Well-being SDG 12: Responsible production and consumption SDG 13: Climate Action

Water for Education, Education for Water is a strategic initiative of the EPM Group Foundation that seeks to ensure sustainable access to drinking water as an enabling condition for learning, school retention, and the comprehensive development of the country's rural communities. The project integrates solutions for access to safe drinking water in rural educational institutions with processes of environmental education, community strengthening, and territorial governance, viewing sustainability as a transformative practice that is built from the ground up and in collaboration with communities.

The project's main objective is to provide access to safe drinking water in rural educational institutions in Colombia, while strengthening local capacities for the responsible use of water resources, the conservation of water sources, and the protection of the environment and biodiversity, thereby directly

contributing to improving the quality of life of the rural educational community.

Since its inception in 2011, the project has directly benefited more than 103,000 students in 9 departments across the country through the installation of 906 water treatment solutions in rural areas of Colombia. As part of its evolution and innovation, in 2023 the program piloted a circular system using a nature-based solution—an artificial wetland—to treat domestic wastewater from the school campus so that the treated water could be reused in the school garden, thereby strengthening applied environmental education, food security, and community self-management of water resources.

Throughout its history, the project has been supported by more than 50 strategic partners, including municipal and departmental governments, environmental authorities, foundations, companies, and business groups. Notable partners include the EPM Group, the Antioquia Governor's Office, Ecopetrol, Cornare, Corantioquia, Coca-Cola FEMSA, Fundación Grupo Social, Fundación Corona, Fundación Celsia, and Fundación Luker, whose collaboration has been key to strengthening territorial governance and ensuring the initiative's sustainability.

Thanks to this joint effort, the project has mobilized more than 37, billion pesos by integrating financial resources, technical capabilities, and local knowledge, which has made it possible to consolidate a long-term initiative with sustainable impacts on access to drinking water, education, and the well-being of rural communities.

3. The Problem Addressed

The lack of access to safe drinking water in rural areas of Colombia constitutes a structural problem that directly affects health, education, and territorial equity. According to the National Administrative Department of Statistics (DANE), nearly 3.2 million people in the country lack access to safe drinking water, of whom 2.6 million (more than 80%) live in rural areas, where average coverage barely reaches 57%, in contrast to levels exceeding 95% in urban areas.

This gap is particularly acute in rural educational institutions. According to the Ministry of National Education and UNICEF, about 40% of rural schools in Colombia lack access to safe drinking water, which limits basic conditions for hygiene, well-being, and learning, thereby increasing the risk of absenteeism and school dropout.

Additionally, limited water resource governance, low coverage of public water and sanitation services in rural areas, and the degradation of water sources—exacerbated by climate change—hinder the quality of life in rural Colombia. In this context, ensuring access to safe drinking water in rural educational institutions becomes a key strategy for improving health, strengthening school retention, and contributing to the sustainable development of rural areas.

4. The Solution

The "Water for Education, Education for Water" program implements a comprehensive solution that combines adequate infrastructure for access to safe drinking water with training and community-building processes, aimed at ensuring the long-term sustainability of the resource.

From a technical standpoint, the program installs water purification systems in rural educational institutions using infrastructure made from recycled plastic-wood, which reduces the environmental impacts caused by the extraction of new resources; eco-efficient designs that promote risk mitigation and space optimization; and materials that encourage the responsible production and consumption of natural resources; context-appropriate technologies—such as ultrafiltration and disinfection systems—are installed to provide potable water suitable for human consumption. In addition, a pilot project was carried out to incorporate nature-based solutions, such as artificial wetlands for wastewater treatment, promoting water reuse in school gardens and a circular water management approach that reduces pollution and protects ecosystems.

The socio-educational component strengthens the capacities of the community and the educational system through environmental education, teacher and student training, and pedagogical strategies such as "The Water Guardians." It also promotes the formation of Water Committees, which foster participation, community ownership, responsible use of water resources, and the protection of local water sources, thereby strengthening water governance in the region.

By integrating infrastructure, education, and community leadership, the program transforms rural educational institutions into spaces for learning, well-being, and sustainability, contributing to student retention, improved health, and the sustainable development of rural communities.

5. Results

Since its inception in 2011, the program has achieved the following:

- Install more than 900 water purification systems in rural educational institutions, using appropriate technologies adapted to local conditions, thereby ensuring access to safe drinking water suitable for human consumption.
- Benefit more than 103,000 students and members of the educational community in 9 departments and more than 160 municipalities across the country, improving well-being, health, and hygiene conditions in rural school settings.
- Strengthen socio-educational and community capacities through environmental education initiatives, training for teachers, students, leaders, and the surrounding community, the implementation of educational strategies such as "Guardians of Water," and the formation of Water Committees, thereby promoting community ownership and the responsible use of water resources.

- To mobilize more than 37 billion pesos over the course of the program, using the EPM Group Foundation's own resources and co-financing arrangements with public, private, and international cooperation entities, thereby strengthening the initiative's financial sustainability and territorial reach.
- Incorporate innovation and environmental sustainability, highlighting the piloting and implementation of nature-based solutions, such as artificial wetlands for the treatment and reuse of wastewater in school gardens, thereby promoting a circular water management approach

6. Conclusions and Lessons Learned

The experience of the "Water for Education, Education for Water" program demonstrates that ensuring access to safe drinking water in rural contexts requires flexible solutions tailored to water quality and local conditions, rather than standardized models. The gradual transition to more efficient and resilient technologies has been key to expanding c coverage and ensuring service continuity.

A key lesson is that infrastructure is sustainable only when accompanied by robust socio-educational processes. Strengthening local capacities, involving the educational community, and establishing water governance mechanisms have been decisive for ensuring ownership of water treatment solutions, the maintenance of systems, and the sustainability of the impact over time.

Furthermore, the program highlights the value of continuous learning and the progressive improvement of the model, incorporating innovations such as nature-based solutions and circular water management approaches. Finally, it confirms that inter-institutional and multisectoral coordination is a key factor in scaling up solutions, mobilizing resources, and strengthening the sustainability of interventions in rural areas.

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