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CDKN ESSENTIALS

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Sustainable land use in Quito to safeguard vulnerable communities from floods, droughts and fires

Key findings

1. **Political will, local community interest and integration with provincial development plans were all critical to the success of this project.** An essential feature in the design of any similar initiative will be identifying these enabling conditions. Securing these should be the first priority.
2. **Empowering key actors and engaging priority sectors secures buy-in and ensures that a project responds to local needs.** In Quito, various agricultural stakeholders were consulted due to the regional importance of the sector.
3. **Climate vulnerability studies on a medium scale such as this one are strengthened by the input of local communities and their validation of findings.** Without their involvement, studies run the risk of overlooking local realities.
4. **Climate resilience criteria must be integrated fully into development planning decisions** across all sectors for the potential of the city's adaptation plan to be fully realised; this is a necessarily long and complex process to reach the range of institutions and individuals involved.

Low income communities in the hills surrounding Quito, Ecuador live under constant threat from landslides and wildfires. The situation is exacerbated by climate change, with alternating heavy rains and droughts. A CDKN study and pilot project in association with the Municipal Government of Quito and Ecopar Corporation has made the case for restoring local ecosystems and sustainable farming, so as to protect these vulnerable communities.

Fragile livelihoods and ecosystems

Some 38% of Quito's 2.2 million inhabitants still live below the poverty line, many in shanty towns on the outskirts of the city. Erratic rainfall can transform ravines into rivers of mud, with the power to wipe out homes and lives in an instant. Changes to rainfall patterns and temperatures also affect the city's diverse ecosystems, with a negative impact on the farms, industries and communities that depend on them.

> Erratic rainfall caused by climate change can transform ravines into rivers of mud that can wipe out homes and lives in an instant.

New infrastructure in the City of Quito helps to retain water and soil on the hillsides.

CDKN provided technical assistance to assist the Municipal Government of Quito to prepare a five-year Action Plan to tackle climate vulnerability. This contained a portfolio of about 50 projects, of which 21 ideas were prioritised for action.

As part of the analysis, CDKN partnered with Ecopar Corporation to conduct a vulnerability study to help district authorities design initiatives to protect Quito's sensitive ecosystems, including combatting soil erosion, and to safeguard lives and livelihoods.

The CDKN team also partnered with the Municipal Government of Quito's Department for Environment to assess climate change vulnerabilities among five rural communities in the city's borders, using a participatory approach to gauge local needs.

Good practices for climate adaptation

In the wake of the study, the city has funded numerous climate projects, including resettling families living in flood-risk areas, creating urban green spaces and setting up urban farms to provide nutritious food to poor communities. Different departments of the Municipality of Quito had begun to incorporate climate-related ítems in their budgets, based on the design of the 'Climate Action Plan Quito'.

For example, the study fed into an adaptation pilot project that addresses sustainable food production, water management, agricultural supply chains and community engagement. The Municipality set up an agroforestry nursery, which aims to restore native tree and plant species and vegetation cover, to prevent further erosion and landslides, while providing fresh produce for the farmers to market. In association with this initiative, farmers and students have attended a combined practical and academic course, and have taken part in exchange trips to witness 'best practice' climate adaption projects.

The study will also help to shape new measures to tackle wildfires. Project participants and their families say they now have the tools and knowledge to develop new responses to emerging climate challenges.

The Municipality's Environmental Secretariat, the City Council and the public companies providing municipal services have started to form a common agenda around climate change adaptation. "The Secretariat of Environment has generated a set of sustainability indicators that allowed us to evaluate sectors such as waste management, water provision, mobility, sanitation, energy, and air quality and pollution," says Nixon Narvaez of the Secretariat. The performance of Quito's overarching climate change strategy "has been assessed as 'medium' with a potential to improve in rural areas and to stabilise in urban areas," he adds.

> The nursery aims to restore native species and vegetation cover to prevent further soil erosion and landslides.

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An urban agriculture project of the Municipal Government of Quito.

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