

2026 Country Exchange Report

Panama City, Panama

23-27 February 2026



Adaptation to Climate Change through Integrated Water Resources Management in Panama

Introduction

The Adaptation Fund convened its sixth Country Exchange in Panama from 23-27 February 2026, bringing together representatives from twelve National Implementing Entities (NIEs), one Regional Implementing Entity (RIE), and national stakeholders under the theme "Adaptation to Climate Change through Integrated Water Resources Management in Panama." Hosted by Fundación Natura, Panama's NIE, the event provided a field-based learning platform where participants observed transformational adaptation across the Chiriquí Viejo and Santa María river basins. Fundación Natura led the organization and facilitation of the sixth Country Exchange, linking national institutions, executing partners, producers, and international delegates.

Nearly three years after project completion in December 2022, participants witnessed functioning farms, active producer networks, and institutional services that continued generating value, demonstrating that adaptation measures can outlast project cycles when supported by strong institutional partnerships. The exchange showcased climate information services, agroforestry systems, water harvesting infrastructure, livestock reconversion, and sustained institutional accompaniment as pathways to durable climate resilience.

Climate change impact in Panamá

Panama ranks 14th globally among countries most exposed to multiple climate-related hazards, with 15 percent of its territory exposed and 12.5 percent of its population vulnerable to two or more climate hazards. Due to its geographical location and hydrological regime, the Republic of Panama is particularly vulnerable to the adverse effects of climate variability and climate change. Projections on mean annual temperature change in Panama anticipate a generalized increase, between 0.5°C and 2 °C, by 2050, depending on global greenhouse gas emissions levels. These temperature increases translate into an increased vulnerability and risk for climate-sensitive areas such as agriculture, water, forestry, infrastructure, and health, which are expected to be particularly affected. Historically, Panama has experienced extreme weather events, including intense and protracted rainfalls, floods, droughts, wildfires, landslides, tropical storms, and ENSO/El Niño-La Niña events that cause significant economic losses and affect communities' livelihoods, including those which are most vulnerable and at-risk such as afro Panamanians, rural people and indigenous groups.

Welcome Remarks

Carla López, President of the Natura Foundation Board, emphasized that the \$9.9 million climate adaptation project implemented with the Government of Panama has delivered lasting impacts, strengthening multisectoral capacities and advancing integrated water

resource management in key watersheds critical to the country’s water, food, and economic security. She noted Panama’s vulnerability to climate hazards, particularly in the water sector, which directly affects agriculture and energy, making it a national priority for climate action. Building on this, Mr. Juan Carlos Monterrey Gómez, Special Representative for Climate Change and the DA of Panama to the Fund, highlighted Panama’s push for environmental diplomacy to streamline access to climate finance by proposing a unified application and reporting framework across major funds, aiming to reduce inefficiencies and accelerate project approvals. Despite progress, he underscored that barriers remain in adaptation planning, particularly in ensuring a long-term, resilient pathway for the water sector.

Finally, Mr. Mikko Ollikainen, Head of the Fund, emphasized the urgent need to accelerate adaptation efforts amid rising climate risks and limited finance, commending Panama and Fundación Natura for their leadership in locally led adaptation, particularly in integrated water management. He highlighted COP30 as a shift from commitments to implementation and noted the Fund’s growing momentum through increased approvals, funding expansions, and broader support to vulnerable groups. Using Panama as an example, he underscored the importance of water security for livelihoods and resilience, and encouraged participants to use the exchange for peer learning, strengthening readiness, and advancing collaboration, while recognizing that demand for adaptation finance continues to exceed available resources.

Field Visits: Demonstrating Transformational Adaptation

Over three intensive days, participants engaged directly with farms, meteorological infrastructure, community-based initiatives, and water management solutions across the upper Chiriquí highlands and the Santa María basin. The sequence of visits revealed adaptation as a cumulative process involving climate information services, producer organization, agroforestry, water harvesting, livestock reconversion, soil restoration, women’s economic participation, and institutional accompaniment.

Day 1: Chiriquí—Institutional Platforms and Climate Information Services



On February 24, participants traveled to Volcán in Tierras Altas, Chiriquí. The afternoon opened with a beneficiary fair showcasing institutional collaboration among MIDA, MiAMBIENTE, IMHPA, and SINAPROC on agroclimatic technical roundtables, climate vulnerability studies, and early warning systems. Women producers described organic family agriculture practices, while coffee

producer Ana Cecilia Pitti demonstrated entrepreneurial outcomes from adaptation support through international coffee sales.

The visit to the automated meteorological station in Cerro Punta, Bajo Grande, revealed critical climate information infrastructure. With over five decades of operation and Adaptation Fund automation support, the station combines conventional and automated measurement systems. The presence of Francisco, the long-serving technician maintaining manual records, represented continuity between historical observation and modernized services. Engineer Javelis Santa María explained how producers use agrometeorological bulletins as early warning tools.

Day 2: Renacimiento—Climate-Resilient Specialty Coffee Landscapes



On February 25, participants visited Finca Gaviota, where producer Gabriela Santamaría demonstrated shaded coffee systems with climate-resilient varieties including Marsellesa and Catuai SH-3, cultivated alongside plantain, banana, lemon, avocado, beans, and maize. This diversification reduces risk and strengthens household resilience through multiple income sources.

More than thirty women producers organized collectively to address market access barriers, highlighting that adaptation depends on social organization and women's capacity to move up value chains. Discussion also emphasized riparian vegetation protection and gallery forest conservation, demonstrating that coffee systems were designed for both productivity and watershed protection. The day concluded with a Panamá Jazs Coffee tasting, illustrating that resilient systems must be economically viable.



Day 3: Veraguas—Silvopastoral transformation and water management in the Santa María basin



On February 26, participants visited livestock systems in Veraguas. At Finca Manuelito, the Villanero family demonstrated transformational adaptation through transition from intensive rice cultivation to silvopastoral and rotational grazing systems. Delegates observed water infrastructure supplying drinking points in each paddock and resilient pasture varieties maintaining

nutritional value under water stress. Lenis Villanero described the farm as a model and school, with the farmer's daughter managing the nursery, illustrating intergenerational knowledge transfer.

A pilot rainwater harvesting system at a Santiago car wash (1,500-gallon capacity) demonstrated adaptation solutions for small enterprises and urban-peri-urban contexts.



At Finca Lorito, producer Edwin Carrasco presented fodder banks and silage practices securing livestock feed during droughts, alongside silvopastoral arrangements for dairy production where tree cover provides shade under rising temperatures.

These visits occurred nearly three years after project closure, yet sites remained active and commercially relevant, demonstrating that transformational adaptation persists when practices continue after external financing ends.

Lessons Learned and Knowledge Exchange

On the last day of the Country Exchange, a knowledge fair was held where participant IEs showcased their projects on integrated water management and lessons learned and challenges faced in their respective countries.

Conclusion



The sixth Adaptation Fund Country Exchange in Panama demonstrated that transformational adaptation is achievable when climate finance supports systems, relationships, and capacities evolving over time. The exchange confirmed the Country Exchange modality as a strategic mechanism within the Readiness Programme, strengthening collective capacity

of implementing entities through direct observation, peer dialogue, and honest exchange about challenges and successes.

Fundación Natura's leadership illustrated how NIEs serve as knowledge brokers and institutional anchors, translating climate finance into coordinated action persisting beyond project timelines. Continued functioning of visited sites nearly three years after project closure provided compelling evidence that adaptation investments generate lasting change when accompanied by strong institutional partnerships, producer organization, climate information services, and deliberate attention to post-project sustainability.

As climate impacts intensify globally, Panama's integrated water resources management approach offers valuable insights for implementing entities across regions. The exchange demonstrated that water security, agricultural resilience, institutional coordination, and community empowerment are interconnected challenges requiring systemic responses. Through continued South-South cooperation and knowledge exchange, the Adaptation Fund community of practice strengthens its collective capacity to support vulnerable communities in building climate resilience.

Annex I – Adaptation Fund NIE and RIE participants

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