Cloud Forest Blue Energy Mechanism

Deforestation threatens food security, clean water, and the livelihoods of local communities. Deforestation also increases the probability and severity of extreme events such as flooding and landslides (World Bank, 2016). In addition, it is a key driver of climate change: about 67% of CO2 emissions from Latin America and Caribbean countries originate from land use and loss of forests (WRI, 2017). Despite their importance, 1.1% of cloud forests are lost every year globally (FAO, 1990), and to date about 50% of these forests have been lost in Latin America (Saenz, 2014).

Cloud forests are uniquely biodiverse and deliver a multitude of clear benefits, but finance for conserving and restoring forests has fallen short of the need.

The Cloud Forest Blue Energy Mechanism will engage hydropower operators in Latin America to pay for upstream forest conservation and restoration through a new "pay for success" model

The Cloud Forest Blue Energy Mechanism aims to mobilize domestic commercial finance to reforest and conserve cloud forests in Latin America that provide crucial benefits to the hydropower industry. It uses an innovative "pay for success" financing technique in which a hydropower plant pays for measurable ecosystem benefits provided by cloud forests within the plant's catchment – principally reduced sedimentation, increased water flow and improved water regulation.

The Mechanism brings together environmental valuation methods and pay for success financing approaches to implement sediment management operations that increase both the profitability and sustainability of hydropower operations, while improving water and energy security.

The Mechanism targets restoration of 60 million hectares of cloud forest in Latin America: sequestering 2.4 GT CO_2, reducing communities' exposure to extreme climate events, improving water and energy security, and increasing hydropower profitability

The Mechanism will be rolled out in three stages. In Stage 1 (2017-2019), research and development is conducted with collaborating hydropower plants to assess the potential impact of the Mechanism in three different locations. At this stage, site-specific data is gathered to calibrate the pay for success contract between a hydropower plant and a Special Purpose Vehicle in each project site. USD one million in grant funding is needed to fund Stage 1, which aims to cover all pre-deal development costs in three target watersheds.

In Stage 2 (2020-2025), the Mechanism is implemented where there is a positive business case to do so, in collaboration with the hydropower plant. Implementation will be financed with up to USD 30 million of blended public and private sector finance (financing needs will depend upon the location). Implementation provides much needed empirical data to demonstrate the Mechanism's viability and de-risk future private sector involvement.

Stage 2 will enable a market-led commercial roll-out in Stage 3 (2026 onwards). Successes will encourage private project developers to replicate the Mechanism on a commercial basis, opening up a USD 12 billion market in Latin America.

DESIGN

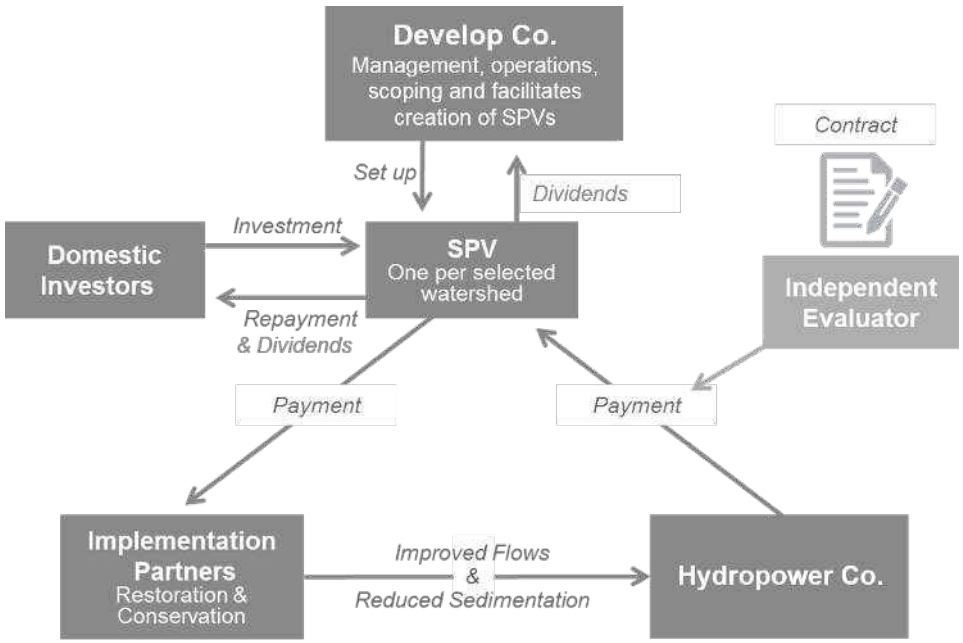
An overarching organization (Develop Co.) acts as a global project development company. The Develop Co. sets up and provides seed funding (sunk costs) for a Special Purpose Vehicle in each project site where a cloud forest watershed overlaps with a hydropower catchment area.

The Special Purpose Vehicle runs the project and manages operations in each location. The Special Purpose Vehicle enables much needed flexibility in organizational structure and delivers transactional benefits expected to outweigh associated transactional costs.

Debt and/or equity financing is raised from Domestic Investors who provide the Special Purpose Vehicle with the funding required. The Special Purpose Vehicle in turn organizes stakeholders within the watershed and uses raised capital to pay the Implementation Partners for the initial restoration and ongoing conservation of cloud forest within the plant's catchment area.

Restoration and protection of cloud forest provides measurable ecosystem services of reduced sedimentation, increased water flow and improved water regulation. Benefits received by the Hydropower Co. are measured by an Independent Evaluator and trigger payments from the Hydropower Co to the Special Purpose Vehicle through performance metrics established in the pay for success contract.

Finally, the Special Purpose Vehicle uses revenues to pay back investors.



The Global Innovation Lab for Climate Finance *is a public-private initiative that supports the identification and piloting of cutting edge climate finance instruments. It aims to drive billions of dollars of private investment into climate change mitigation and adaptation in developing countries.*

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