

RIDGE TO COAST, RAIN TO TAP: Sustainable Water Supply in the Cagayan de Oro River Basin



Work Package 2 : Reducing the Risk of Flooding
through Integrated River Basin Management

Water Everywhere, but Little to Use at Home

The Ridge to Coast, Rain to Tap Project: Sustainable Water Supply Project was developed in response to the impacts of Typhoon Sendong in 2011 on the Cagayan de Oro City and its residents. Heavy rainfall cascaded down the steep slopes of the Mt. Kitanglad Mountain Range that resulted to flooding in the river basin down to the delta. The facilities of the Cagayan de Oro Water District were partly destroyed by the flood, leaving the citizens without water for domestic use for two weeks. Logs were washed downslope by the current, destroying and washing away settlements at the mouth of the Cagayan de Oro River. The damages resulted to loss of life, property, and productivity.

Integrated Risk Management in the Cagayan de Oro River Basin

VEI Dutch Water Operators and the Cagayan de Oro Water District came together to develop a project to repair and improve the facilities and delivery services of the water provider. The two water companies also wanted to reduce the risk to flooding that threaten the facilities so they invited Wetlands International to be part of the project development.

Wetlands International saw the opportunity to implement integrated risk management in the Cagayan de Oro River Basin. The flooding in the delta, where Cagayan de Oro City is located, will be exacerbated with increased precipitation under extreme weather events and climate change. Logging and large-scale plantations have disturbed the state of the forest located in the watershed and catchment. The watershed and the riparian zones cannot absorb high rainfalls. The management intervention needs to address the impacts of climate change, the status of the environment, and disaster risk reduction and management.

RIDGE TO COAST, RAIN TO TAP: SUSTAINING WATER IN THE CDO RIVER BASIN

VEI and its Partners submitted a proposal entitled Ridge to Coast, Rain to Tap Project: Sustainable Water Supply (R2CR2T) to the Dutch Enterprise Agency (RVO in Dutch) for funding.

Funding was successfully secured for a 5-year Project (currently on a 2-year extension; extended to 2024).

Work Package 1:

Project Management
Partner: VEI Dutch Water Operators

Work Package 2:

Reducing the Risk of Flooding
Partner: Wetlands International

Work Package 3:

Climate resilient and improved management of water supply infrastructure
Partner: FRRL Industrial Trading Company (FITC); Cagayan de Oro Water District

Work Package 4:

Improved Water, Sanitation, and Hygiene conditions in flood re-settlement areas
Partner: Netherlands Red Cross (NLRC) / Philippine Red Cross (PRC)

For more information on Work Package 2, please contact:

Annadel S. Cabanban, Ph. D.
Country Manager
Wetlands international Philippines
E-mail: Annadel.Cabanban@wetlands.org

Component 1: Reforestation

This component demonstrates reforestation of the buffer zone of Mt. Kitanglad Range Natural Park and gullies using the reforestation approach. This approach has social and ecological aspects. It starts with reinforcing the value-system of the local community and building communal gardens and livelihoods (coffee and adlai farming). Once the community has food on their table and money in their pockets, the reforestation begins with the shading of cogon grass with *Calliandra sp.* to eliminate the grass. When the grass has died, seedlings of native trees and fruit trees are planted. The survival rate of seedlings is high (95%).

Partners: Unifrutti Tropical Philippines Inc. – Mt. Kitanglad Agri-Ventures Inc. (UTPI-MKAVI) / Hineleban Foundation Inc. & Bukidnon Indigenous Peoples Advisory Council (BIPAC).

Component 2: Payment for Ecosystem Services (PES)

This component looks at the financial infrastructure in the river basin and promotes Payments for Ecosystem Services (PES) with the local government units, Cagayan de Oro Water District, private sector, and the public. The PES models intend to show that beneficiaries of the watershed rehabilitation can contribute to the cost. This component is implemented by the Cagayan de Oro River Basin Management Council. It is a multidisciplinary platform with a strategy for integrated river basin management.

Component 3: Hydrological Modeling and Decision Support Tool (HM-DST)

This component focuses on configuring a hydrological model for the Cagayan de Oro River Basin and developing a Decision Support Tool for convincing policy-makers, large-scale plantation owners, and other stakeholders that rehabilitating the watershed will reduce the risk of flooding with different climate change scenarios. The HM-DST is being prepared by a team of experts in a local non-governmental organization and university.

Partner: Wetlands International (WI).