





Message

ROLANDO JOSELITO D. BAUTISTA

Secretary

Department of Social Welfare and Development

The Department of Social Welfare and Development (DSWD), as the lead agency for the Response Cluster of the National Disaster Risk Reduction and Management Council, is strengthening its efforts against the effects of climate change through the Risk Resiliency Program actualized by the Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR) under the Disaster Response Management Bureau (DRMB).



Climate change is a global phenomenon that is felt on local scales — from diverse effects in coastal areas, to extreme weather conditions, and disruption in the preservation of biodiversity and ecosystems. Moreover, the rapid pace of climate change has greatly affected vulnerable populations and hampered the growth of people's livelihood and community development.

While climate change presents a major global concern, it also leads to a multifold of stories on peoples' triumph over this environmental adversity. I commend the DRMB, under the leadership of Undersecretary Felicismo C. Budiongan, for compiling these narratives into a Coffee Table Book entitled, **EMPOWERING**

to our efforts to protect and preserve the environment for the next generation to come.

I laud the women and men featured in this Coffee Table Book who demonstrated great strength in the midst of disasters. Let their stories of struggle serve as our inspiration to continue with our mission to attain a caring society and environment for all.

Ipagpatuloy natin ang maagap at mapagkalingang serbisyo para sa ating mga kababayan.



Message

FELICISIMO C. BUDIONGAN

Undersecretary
Disaster Response Management Group

In line with the Philippine Administration's thrust to focus on managing the effects of natural hazards and climate change, the Department of Social Welfare and Development is enjoined to share the common responsibility in strengthening the country's disaster and climate resilience.

To achieve this goal, national plans and framework strategies are laid out. The Philippine Development Plan 2017-2022 seeks to lay a foundation for more inclusive growth and resilient society, and the National Framework Strategy on Climate Change is translated into the National Climate Change Action Plan that outlines the roadmap for adaptation and mitigation strategies and actions. The Cabinet Cluster on Climate Change Adaptation, Mitigation, and Disaster Risk Reduction (CCAM-DRR) which formulated the Cluster Roadmap, is organized by virtue of the Executive Order 24, Series of 2017, for the effective integration of policies and programs of the government on disaster resiliency and sustainable development. The Risk Resiliency Program (RRP) is created to operationalize the Cluster Roadmap which aims to enhance resilience of vulnerable families and communities.

As member agency of the CCAM-DRR Cabinet Cluster, the DSWD implements the Risk Resiliency Program through the cash-for-work modality to increase the adaptive capacities of the poor families in disaster-prone and affected communities.

Through these programs and projects, practical policies, and comprehensive community-wide engagement accelerate, and advance successful local climate solutions that address the needs of the vulnerable. We are reminded that local solutions do not only solve local problems, but also contribute to sustainable development.

The Success Stories of the Risk Resiliency Program thru Cash-for-Work compiled in *EMPOWERING GRASSROOTS Towards Strengthening Resilience* recognize the collective efforts and notable successes of the community spotlighted in its pages, while underlining the inspirational and valuable contribution of the grassroots movement.





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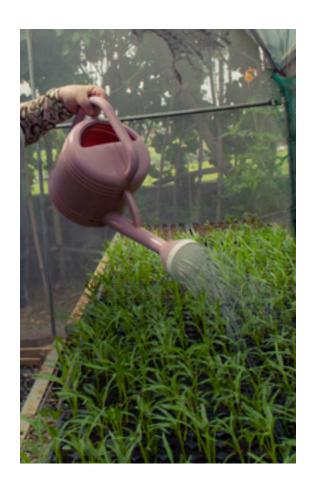
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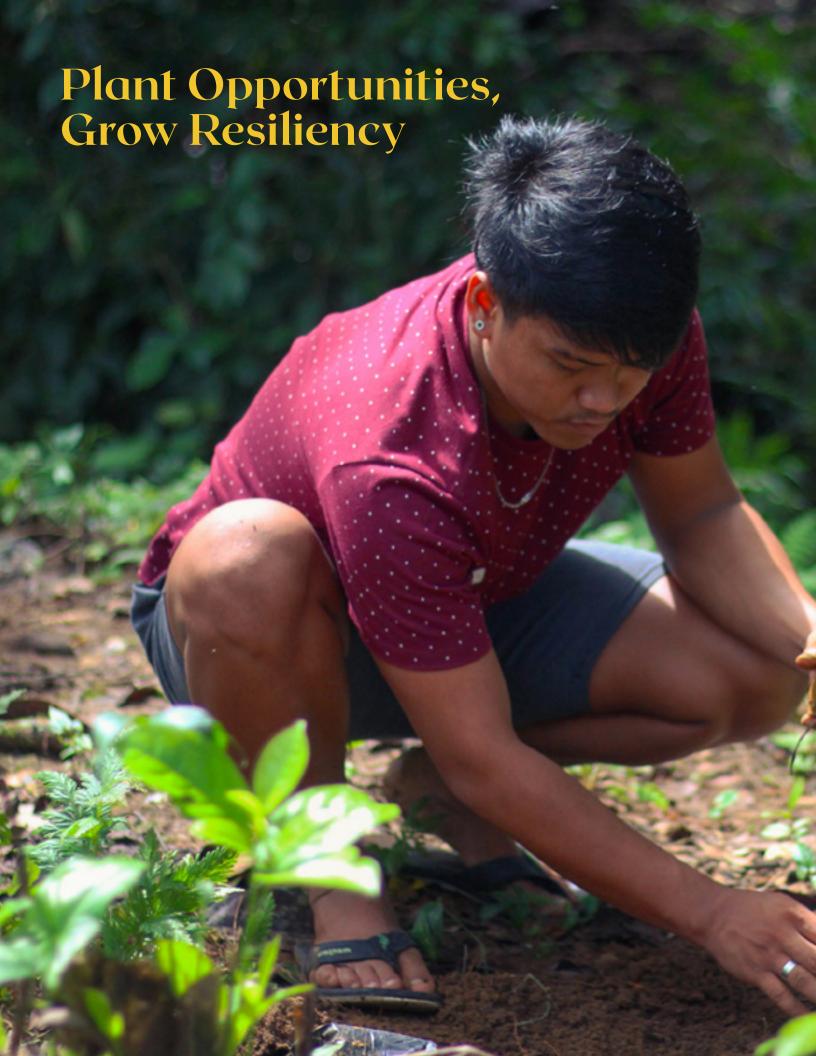


ON THE COVER

Imelda Torregosa, 55, is an RRP CFW beneficiary from Datu Salumay, Davao. With her earnings, she expanded her garden and consigned vegetables to Gaisano Mall. With the additional income, she can now afford her family's basic needs, her daughter's educational expenses, and her mother's medical costs.









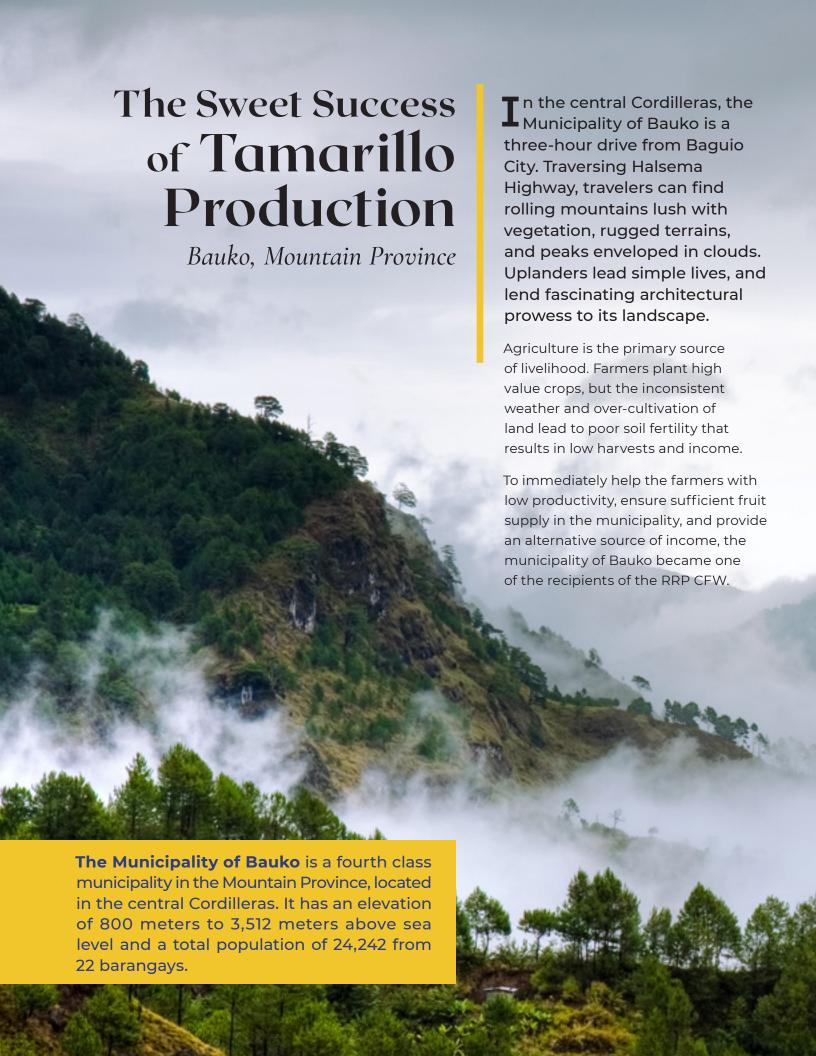
The RRP CFW plays the pivotal role of a safety net to teach risk resiliency to communities, plant cash-for-work opportunities, adapt from these changes in their respective communities, and mitigate the effects of climate change.

The Philippines holds much natural wealth with rich biodiversity. However, its natural environment has become increasingly fragile with more frequent and extreme weather events due to climate change. The lucrative trade in products from natural resources is also substantially reducing its biodiversity.

Many of the country's poorest population rely on the natural resources for their source of livelihood and daily sustenance. Supporting sustainable livelihoods and environmental protection are among the significant ways of addressing rural poverty which will build a solid foundation for promoting climate change adaptation, and protect biodiversity and ecosystem services

In areas with massive deforestation, one of the main solutions is simply to grow indigenous trees back in their locale. Whether it is the popularization of a fruit-bearing Tamarillo tree that is unique to Bauko, Mountain Province, planting trees with phytoremediation properties to minimize the chloride in the Bulacan river, or a community initiative of *Kawayanihan*, or bamboo planting in Bayabas Surigao, Del Sur, and to revive the wood carving industry in Paete, Laguna.

These efforts nurture a deeper appreciation for native trees that help protect and nurture the local communities, and also foster a stronger resolve to preserve their available natural resources.



The LGU introduced crop diversification by cultivating tamarillo. Commonly called "Dulce," tamarillo easily grows on any type of soil, and is known to be the most enduring fruit. Tamarillo trees absorb carbon gases, contribute to ecological balance, and control soil erosion by absorbing rainwater. The tamarillo fruit is an excellent source of vitamins and minerals. But despite the many benefits Tamarillo can provide for the human body and the environment, the people of Bontoc are still widely unfamiliar with Tamarillo's full potential.

On September 2018, one hundred beneficiaries from seven barangays implemented the Tamarillo Production project. The beneficiaries, which are comprised of farmers, persons with disabilities (PWDs), solo parents, women, senior citizens, and indigenous people, were able to plant 5,000 tamarillo trees, with each beneficiary planting 50 tamarillo cuttings in their gardens, backyards, and available lots.

However, due to consecutive disasters, most of the tamarillo trees died. But despite this, the beneficiaries still continued to plant new tamarillo cuttings and germinate new seedlings from dried seeds.

"Aside from the assistance we received from our 10 days' work, the produce from my tamarillo production was sold at a local café in our municipality. I was able to augment the income of my husband," Jonalyn Sawac, 32 years old, Barangay Sinto, Bauko.





Tamarillo (Cyphomandra betacea) is an excellent source of vitamins A, C, provitamin, high in calcium, iron, potassium, phosphorus, and magnesium, and also contains copper, manganese, and zinc. Tamarillo is a low-calorie fruit, a modest source of B-complex vitamins such as thiamin, riboflavin, and pyridoxine (vitamin B-6).

The Katuray Tree Project Grows Togetherness

Bulakan, Bulacan

ccording to a Bulacan State University (BSU) study, pollution in the river of Bulakan, Bulacan had reached a critical level — traces of chloride in water samples had accumulated in soils. This badly affected fishing conditions, which distressed the fisher folk who solely rely on the river for sustenance.

To reduce pollution and decrease the amount of lead contaminated soils, planting trees with phytoremediation properties is recommended. Among these trees is *katuray*.

In response, the Solo Parents Federation (SPF) implemented the *Katuray* and Cotton Tree project in 2015. The project initiated planting and maintaining of *katuray* and cotton trees along the area. The DSWD provided augmentation to the local government of Bulakan through the RRP cash-for-work.

All fourteen barangays of the municipality collaborated to put up a nursery, of which caring for became the responsibility of the local Pag-Asa Youth Association of the Philippines (PYAP). Using the money they earned through the CFW, members of PYAP bought supplies for the nursery. More *katuray*, *karumata*, cotton, and turmeric seedlings were grown for distribution and even sold to other municipalities.

BSU's Biology Department continually monitored the condition of the river's water, and they have observed that the areas planted with *katuray* shows a lower amount of lead, compared to the areas without *katuray*. This confirms the *katuray*'s ability to rehabilitate the soil and water river system. This served as a demonstration of



how the collective efforts between the local government and community can contribute to building a more resilient environment.

Meanwhile, the municipality of Bulakan also aims to further develop the community's knowledge on indigenous trees, including *katuray*. This is to help the reforestation of eroded slopes and rehabilitate depleted agricultural land.

The project became an avenue, not just as a temporary employment, but to increase the awareness of solo parents on biodiversity. The solo parents continue to plant *katuray* trees to this day – growing a legacy for the future generations of Bulakan, Bulacan.







DENR, PNP-Banate Municipal Population Office (MPO), Dela Paz National High School, Girl Scouts of the Philippines, Red Cross Youth, and the Irrigators' Association, they planned the Managopaya Initiative together.

The LGU-MAO committed 2,500 seedlings of Arabica Coffee, while DENR provided a training site for the 47 beneficiaries with their Barangay Officials, and planted most of the 2,500 seedlings in three hectares of land.

A community parade from Managopaya Barangay Hall to the tree planting site promoted the event. The participants planted the remaining seedlings, and shared their learnings to the rest of Barangay Managopaya.





Managopaya's population (NSO 2015) is 1,280, or 3.93% of Banate's total population.

Bayabas Champions Environmental Preservation

Bayabas, Surigao del Sur

n the province of Surigao del Sur, soil erosion is one of the problems of the 5th class Municipality of Bayabas. Seven barangays became recipients of DSWD RRP CFW Activities on CCAM, where they implemented projects aligned with the existing local plans. These projects are the Sagip-Tubig, Sagip-Ilog, Kawayanihan, Sagip-Wakatan, and Gulayan-Bayanihan.

In their Sagip-Tubig Project or Watershed Rehabilitation, beneficiaries developed and



source. The Sagip-Ilog or riverbank stabilization thru "KAWAYAN-ihan," planted bamboo and fruitbearing trees along the riverbanks to prevent soil erosion and flooding. The Sagip-Wakatan or Mangrove Reforestation, helped prevent storm surges and sustain the supply of aquamarine and fishery products. Lastly, the Gulayan-Bayanihan helped sustain the vegetable and root crops supply to address the food security crisis of the community during the pandemic.

The community became a recipient of RRP CFW since October 2019. With the help of RRP CFW, the community was further educated about climate change, and their contribution to mitigate and adapt to its effects. After their 10-day community work, each beneficiary brought bamboo culms during their payout. This exceptional initiative was introduced by the LGU to gather 1,500 live and ready to plant bamboo culms for their *Kawayanihan* initiative all over Bayabas.

The projects were turned over to the Sangguniang Kabataan Council, Barangay Council, and other existing organizations in their municipality, including women, fisherfolk, farmers, irrigators, and waterworks sanitation associations. They committed to monitor the projects every month and allocated a budget for its maintenance and sustainability.

In the heart of Bayabas, are residents who are environmental champions.





Batikuling Propagation Preserves Wood Carving Tradition

Paete, Laguna

paete is the wood carving capital of the Philippines. It is an inland town located at northeastern Laguna, about 90 kilometers from Manila. For the Uplands, farming is the main source of livelihood, while some engage in charcoal and small-scale logging.

Paete is classified as a 4th class municipality, and consists of nine barangays. The total land area of 6,301,625 hectares includes the uplands of Sierra Madre Mountain. 90% of the town is upland and hilly, and about 40% is protected land.



Due to continuous logging, *Batikuling*, the native tree used for wood carving are all extinct. To preserve, protect, and revive the wood carving industry in Paete, the LGU of Paete, together with Southern Luzon State University (SLSU), Lucban, Quezon, and the DSWD RRP CFW program, initiated the *Batikuling* Propagation Project.



The preservation of natural resources has a long and wide impact for Paete, especially in the conservation of the watershed area as the main source of potable water for the municipality. The *Batikuling* Propagation project serves as the Learning Hub on Integrated Farming and Forestry for Paete, and employed 246 indigent families from nine barangays of Paete, Laguna. Seventy percent (70%) of the beneficiaries are 4Ps members.

and link other stakeholders on reforestation and conservation of indigenous forest trees.

forest trees, organize a partner

farmer association to promote

organic farming, conserve and

rehabilitate the watershed area

through continued tree planting,

Forests provide clean air, filter the water we drink, provide a habitat for numerous plants and animals, produce key ingredients in medicines, and protect us from typhoons. Forests also serve as a source of livelihood and carbon sink, and preserve soils that fight flooding.

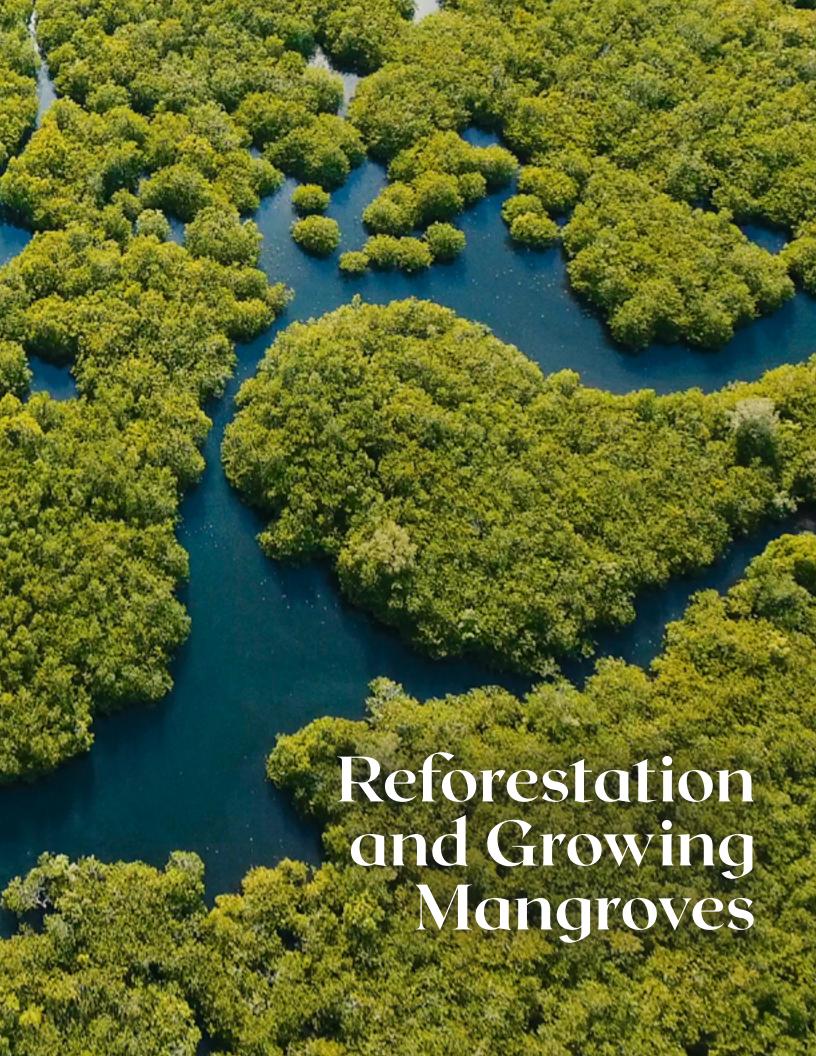
From 2001 to 2019, the tree cover loss in the Philippines is 76%, mostly due to deforestation. But some of the forests can still be recovered, rehabilitated, and protected. The reforestation efforts from Bagongbong, Lambunao and Diffun, Qurino inspire hope for depleted forests that can still recover, rehabilitate and be protected.

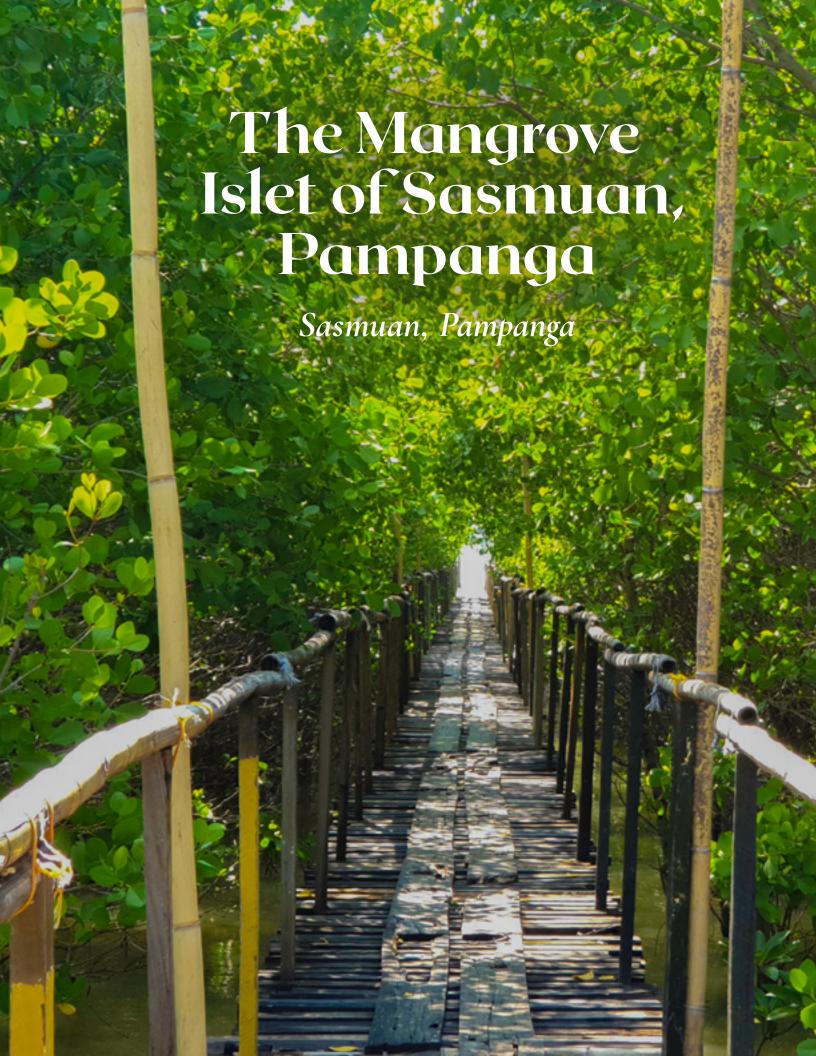
Similar to forests, the country's mangrove cover also dwindled from 500,000 hectares to 250,000 hectares. Mangrove forests are also an essential source of food, and home to a large variety of fish, crab, shrimp, and mollusks. Mangrove forests help stabilize the coastlines, prevent erosion from waves and storms, and protect coral reefs and seagrass.

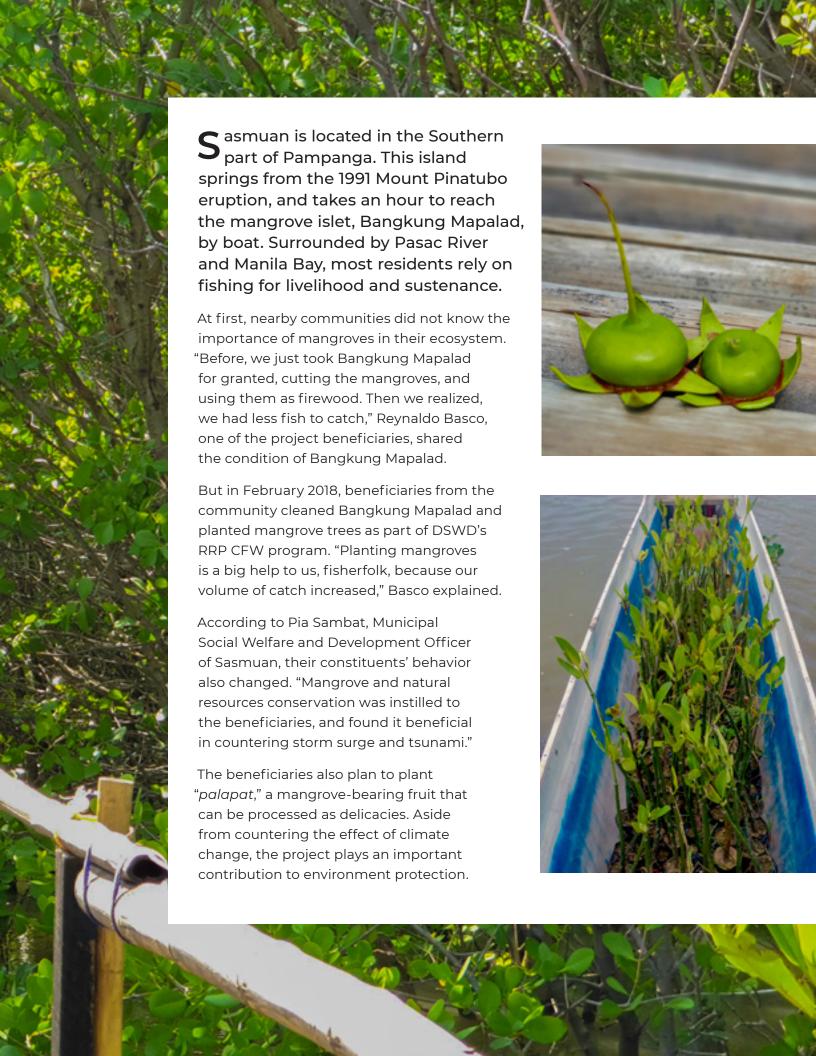
The mangrove islet of Sasmuan, Pampanga, and the mangrove forest in Barobo, Surigao del Sur are examples of communities who successfully grow back our mangrove forests.

The battle between economic development and ecological balance is clearly seen by how much our forest covers grow or dwindles. The truth of the matter is, our economy cannot win when we lose our ecosystems.









Barangay Sua, a Decade of Mangrove Preservation

Barobo, Surigao del Sur

Mangroves are salt-tolerant trees that adapt to living in salt and brackish water conditions. Mangrove forests serve as buffers between land and sea. They protect coastal communities from storm surges caused by typhoons, and control erosion along the shoreline. Mangrove forests can also store up to four times more carbon per hectare than rainforests.

With threats of climate change in mind, the small island barangay of Sua, in the Municipality of Barobo, Surigao del Sur, started to grow mangroves along its coastline in 2000.

In support of this effort, DENR provided a livelihood assistance project for the women's association in the barangay. Soon after, the Municipal Disaster Risk Reduction Council, and several agencies, provided more projects. Barangay Sua has been partnering and engaging with different agencies for its mangrove reforestation since 2000. The community became a recipient of RRP CFW since October 2019.

The barangay council passed an ordinance monitoring the mangrove forest every quarter, banning the cutting of mangrove trees. The community also regularly rehabilitates and cleans-up the mangroves, which is a sanctuary for both aquatic and terrestrial wildlife and protects the community from future disasters.

Since the community quarantine due to the Coronavirus disease (COVID-19) pandemic was imposed, the barangay's livelihood was greatly affected. But through RRP CFW, the affected families were given additional income, and were able to continue to preserve their mangrove forest.

After continuing their work for over a decade, Barangay Sua now has an abundant mangrove forest lying along their coastline and a dedicated and committed community that advocates mangrove forest preservation.



Reforestation and Agro-Forestry in Barangay Bagongbong

Bagongbong, Lambunao

In just over a decade, the Municipality of Lambunao experienced vast forest loss from the spread of agriculture and population growth.

The Local Government Unit (LGU) of Lambunao partnered with DSWD to pilot an integrated and inclusive large-scale reforestation of planting 786 trees in 67.5 hectares in 2018.

The MSWD Office together with DSWD Field Office VI chose Barangay Bagongbong among 73 barangays, as the best model in the municipality. The barangay rehabilitation consisted of coffee, abaca, and a banana plantation intercropped with high value crops.

The Municipal Environment and Natural Resources Office (MENRO) and Municipal Agriculture Office (MAO) conducted the geotagging in all activities for proper implementation and monitoring. The LGU also supported "Champion Farmers" of the municipality to encourage more



Making a Greener Difference in Diffun's Reforestation Park

Diffun, Qurino

iffun is the central hunting ground for natives and llocanos in the Province of Quirino. Considered a primeval forest with many scattered rolling hills, the landscape is a mixture of flatlands punctuated with mountain ranges flanking its western and southern sides, slightly dissected by intermittent creeks and waterways that act as a natural drain of accumulated water from the uplands.

In 2010, the Municipal Government of Diffun developed an eco-park, constructing one thousand steps leading to a picturesque view of the entirety of Diffun and other parts of Isabela.

During the COVID-19 pandemic, the DSWD Field Office II provided the Municipality of Diffun with two CFW allocations for 200 recipients in July and October 2020, to help improve the conditions of its residents, and promote ecological protection and environmental fortification.

The "TREE + YOU FOR GREENER VIEW" project implemented tree planting activities among beneficiaries to clean-up their assigned areas, weed wild grasses, and monitor their planted trees. The fruit bearing trees and other seedlings were provided by the municipal government through the MENR Office, and will benefit residents in future harvests.

Four hardworking and dedicated beneficiaries were hired by the Municipal Government as forest guards to protect and sustain cleanliness in the entire reforestation park.



The Municipality of Diffun is one of six towns that comprises Quirino province. On its North is the Municipality of Cordon and the City of Santiago, on its south is the Municipality of Kasibu, westward are the Municipalities of Bagabag, Diadi, and Quezon, and on the east are the Municipalities of Cabarroguis and Saguday.









A Small Town's Big Community Project

Sta. Praxedes, Cagayan

S ta. Prexedes is the smallest town in the province of Cagayan. A 5th class municipality, Sta. Praxedes has 10 barangays, 1,134 families, with a population of 4,436 residents (as of 2017).

The municipality is one of the coastal towns of Cagayan province without a direct road access to its seacoast because it is surrounded by the northern tip of the Cordilleras. Many are unemployed or underemployed, and hardly meet their basic needs. Residents buy food in nearby municipalities, or in the Ilocos Norte province.

Families living below the poverty threshold are the most affected by typhoons, floods, landslides, and soil erosion, because their houses are made of light materials, and are easily destroyed by strong winds. Past disasters already destroyed many agriculture and fishery infrastructures.

With this situation in mind, the LGU wanted to develop food security and a better access to food supply in times of disaster, through a community-based garden project as DSWD's RRP CFW program for Sta. Praxedes, in 2018.

The communal gardening of Barangay Centro 1, Centro 2
Day Care Center, and Capacuan Elementary School's "Gulayan sa Paaralan" is one of the program's activities. Beneficiaries planted a variety of vegetables, herbs, fruits, and spices in school backyards, garden patches, pockets, pots, and vertical walls. The beneficiaries creatively used recyclable materials with organic materials, such as grass cuttings, rotten leaves, fruit peelings, animal manure, and other bio-degradable materials in the school's compost pits.

The community gardening increased food security, improved vegetable intake, deeming the project successful.

Plaridel's Community Gardening Project

Plaridel, Bulacan

In June 2018, families residing in the Angat riverbank relocated to Casa Vista Resettlement, Plaridel, Bulacan to secure their safety. Moving them to this new area, forced them to leave their homes and sources of income.

In response to food security issues, DSWD's RRP CFW program's Community Gardening project in 2019, helped provide residents with an ample supply of food, and a source of income by selling harvested crops. The beneficiaries are also responsible for the cleaning, planting, maintenance, and monitoring of the garden.

All the beneficiaries are required to have their own backyard garden to improve their way of life. This inspired other family members and neighbors to have a green and healthy community.

Two indicators of social development are sustainable livelihood and safety from hazards. For residents of Plaridel, Bulacan, they are blessed to have both.





Communal Organic Gardening in Barangay Ditucalan

Ditucalan, Iligan



ast December 2012, Typhoon
Sendong hit Iligan City.
Thousands of lives were lost
and millions of properties
were damaged. National and
international organizations helped,
but the process was not easy, with
residents experiencing extreme
heat, flash floods, and landslides.

In 2017, the local council of Barangay
Ditucalan provided a 500-square meter
land where DSWD RRP CFW beneficiaries
started the communal gardening
project. Through a strong partnership
with the Department of Agriculture, the
beneficiaries were provided with vegetable
seeds and organic fertilizers (animal wastes).

They planted vegetables like talong (eggplant), okra (lady's fingers), string beans, pechay (snow cabbage), ampalaya (bitter gourd), kalamunggay (horse radish), kalabasa (squash), kangkong (water spinach), alugbati (Malabar nightshade), luy-a (ginger), and more.

The community of barangay Ditucalan turned over the communal gardening project to the Ditucalan Farmers
Association, where several of the project beneficiaries were also members.

The project grew, and beneficiaries earned as much as PhP 9,170 annually. From the profit, the families invested in a fish-pond business.

Today, Barangay Ditucalan manages the fish pond beside their communal garden, earning more income for association members. The communal and organic gardening project is recognized as a success because of its sustainability for the past three years.



It All Started with Mongo in Sitio Ocapan

Kapalong, Davao del Norte

It takes at least sixty kilometers on a motorcycle from Kapalong proper to Sitio Ocapan of Barangay Gupitan, Province of Davao del Norte. During rainy season, the very steep road going there is prone to landslides.

Most of the residents in Sitio Ocapan depend on their farm to support their daily needs. However, harvesting crops only happens quarterly or semi-annually. Some residents do not have other sources of income because of the lack of opportunities in their area.







Women Unite Against Hunger through Community Garden



Matalam, North Cotabato

ife was never easy growing up in the poor farming village of the mountainous area of Natutungan. The women depend on their husband's daily wages, called 'inadlawan', from working in construction sites or sugar cane farms. Most couples quarrel over surviving below PhP 500 a month.

In 2015, 30 Natutungan women started a gardening project in a small area of their village. In 2017, the Barangay Officials and the MSWDO of Almada saw the potential of the gardening project and proposed to fund a bigger community garden. In 2019, the husbands also helped to maintain the 1.5 hectare community garden.

The community harvested bananas, turmeric, ginger, eggplants, root crops, and lemongrass.

They sold their crops to local markets, almost 15 kilometers to reach the downtown area of Matalam.

Every end of the month, the association collects the income from harvested products, and divides it among its members. The small amount of money is a big help for their families.

During the COVID-19 pandemic, the garden's income provided food for their members. They earned PhP 15,000 from the last harvest of bananas. Members also started gardening in their own backyards.

"Our families were badly affected by the armed conflict between government forces and former Moro Islamic Liberation Front (MILF). We survived by planting our own food. It is a big help for us so we do not rely on the 'inadlawan' of our husbands," said Aling Kadiguia Dandog, mother of eight, and a housewife who maintains the community garden.

The association plans to widen the community garden and plant more local products like turmeric and banana. They will also try to partner with Non-Government Agencies to train them to produce turmeric powder and banana chips.









Disiplina Village: Towards a Sustainable Community

Valenzuela, NCR

During Typhoon Ondoy, the homes near creeks and waterway areas in Valenzuela were flooded. Given the condition, the LGU, in partnership with different organizations and corporations, built Disiplina Village in Bignay, Valenzuela, and urged families to relocate.

The vegetables they harvested from their urban garden were sold for additional income and for their own consumption. The Cash-for-Work helped them in terms of food security. They no longer depend on food assistance because the urban garden became a sustainable source of food and income.







Harvesting Success

The disastrous problems of vulnerable communities also become opportunities to create a sustainable solution towards progress and development. Pollution and excessive waste are difficult problems to overcome, but the residents in Baras, Rizal found a solution. The water hyacinths that clogged the waters in Cardona, Rizal, and Jabonga, Agusan del Norte were turned into baskets. bags, textiles, and other products. Landslides from flash floods forced residents to plant tiger grass to prevent soil erosion in Real, Quezon. The tiger grass were also harvested for soft broom production.

When environmental problems are resolved through sustainable and income generating opportunities, this increases the resiliency and adaptive capacity from short-term and long-term risks of climate change.

The Green Charcoal

Baras, Rizal

The traditional way of Filipino cooking uses natural wood and coconut shell as charcoal. The price is economically reasonable and readily available in the local market. However, to produce wood charcoal, trees are cut and forests are

denuded, causing harm on people's health and the environment. Shifting to the modern technology of briquettes production can preserve and protect our forests. Briquettes are made from sawdust and leftover wood.

In 2017, through the initiative of the LGU and DOST, the beneficiaries of the RRP cash-for-work were trained to produce charcoal briquettes. This joint project provided a new livelihood to the project beneficiaries, and help reduce carbon



dioxide emissions to the atmosphere.

Joel Sabbun and Yolanda Mahinay were among the CFW beneficiaries who traine and shared their knowledge on briquett.

among the CFW beneficiaries who trained and shared their knowledge on briquette production with others, giving importance to our natural resources. The LGU continues to sustain this project to this day.







Winning the War Against Water Hyacinths

Cardona, Rizal

The water hyacinth was a very big problem for the whole of Cardona, Rizal that took decades to solve. The plant clogged a large portion of the lake, affecting fish catch, and water transport.

The magnitude of the spread of water hyacinths in Laguna Lake prompted the LGU of Cardona to provide an alternative livelihood for the town's fisherfolk to pull out water hyacinths.

In 2015, six hundred residents were tapped as beneficiaries of the DSWD RRP CFW to collect stacks of water lilies. The municipality's weavers introduced modern concepts and innovations to transform these flowers into unique, artistically designed water lily baskets, bags, textiles, trays,

mats, hampers, slippers, chests, lampshades, and other products. From swamping waterways and causing floods, the water hyacinths became a stable source of livelihood for residents, especially those who live near Laguna de Bay.

The CFW activity increased the awareness of the beneficiaries and motivated them to maintain the cleanliness of the lake to prevent flooding. They practiced waste segregation and developed skills that created livelihood opportunities.

A Real Industry For Real, Quezon

Real, Quezon

n November 2004, Real was hit hard by Typhoons Winnie, Violeta, and Yoyong. Flash floods swept through Infanta, Real and General Nakar in Quezon Province, and destroyed billions worth of property due to massive logging in the Sierra Madre mountain ranges.

During rehabilitation, the LGU learned that tiger grass is a good agroforestry crop and planting material to control soil erosion. Although tiger grass was already propagated by upland farmers, its potential has not been fully maximized, and was mostly used as forage for farm animals.

In 2016, the DSWD's SLP offered farmers to venture into soft broom making, but they were hesitant because it entailed additional labor when the farmers preferred quick cash. So in 2017, when the RRP CFW program was introduced, in collaboration with different sectors, Tiger Grass was planted to mitigate the effects of landslides in the area. After planting Tiger Grass, the occurrence of landslides lessened, saving lives and property.

The beneficiaries came from the poorest of the poor, and included PWDs, drug surenderers, indigenous people, senior citizens, and women. With a total of fifty-five members, thirty were broom makers and twenty-five were sellers. From charcoal makers and wood cutters, the locals learned soft broom making, which became an alternative livelihood that spread throughout the entire community. They also nurtured the forestland and became stewards of their environment. The land area they cared for was expanded by the municipality from 2 hectares to 4 hectares.

Today, soft broom products from Real, Quezon are sold throughout Metro Manila, Cavite, Laguna, Batangas, Rizal, and the entire Quezon. Given proper attention, focus and sustained support, tiger grass production and soft broom processing became a real industry for Real, Quezon.



A Lot has Changed for the Mamanwas

Jabonga, Agusan del Norte

Indigenous Peoples' groups.
Among them is the Mamanwa
(also known as Congking, Mamaw,
Ammanusa, Manmanua, Mamaua),
the original dwellers of the
forests of Jabonga, Kitcharao, and
Santiago, Agusan del Norte.

The Mamanwas of the Caraga region are the oldest existing group of people in the Philippines, and believed to be direct descendants of the Mambuti tribe in Africa. They are nomadic in nature, live on slashand-burn, rely heavily on food gathering, and cultivate small patches of wet rice agriculture.

Some communities still retained these traditions, but the Mamanwas in Jabonga, Agusan del Norte adapted to the bisaya way of life. From being nomadic, Mamanwas settled and built houses on their ancestral domain. The shift from a subsistence economy to a moneyoriented economy contributed to their poor economic system. Their resources are nearly depleted from hunting, fishing, and farming due to illegal logging, large-scale kaingin, and mining that poisoned the rivers. They adapted by working for the mining corporation to earn income for their basic needs.



"Every year we would experience heavy flooding. It has always been hard during disasters. Even if we stay in the mountains, our plants are damaged due to landslides, it usually takes two to three months for the water to subside," Purok-7 President, Jalpha Antawon, shares.

Since 2018, their RRP CFW project was drainage cleaning, road cleaning, communal gardening, and slope protection through sand bagging along the Kalinawan river. This promoted disaster preparedness and reduced heavy flooding and clogging in the overflowing river. Because they are skilled weavers, the Department of Trade and Industry (DTI) taught them how to make slippers and bags from water hyacinths to provide more livelihood.

"Before the implementation of RRP CFW, there were only a few children in our community who attended school. But now with the monetary help earned, there was an increase of pupils. We are very happy that there are projects like this, that help the poorest of the poor," Erly Dadyo shares.

Cleaning the environment is not ingrained in the Mamanwa culture. But now, a lot has changed with the Mamanwas in Jabonga.



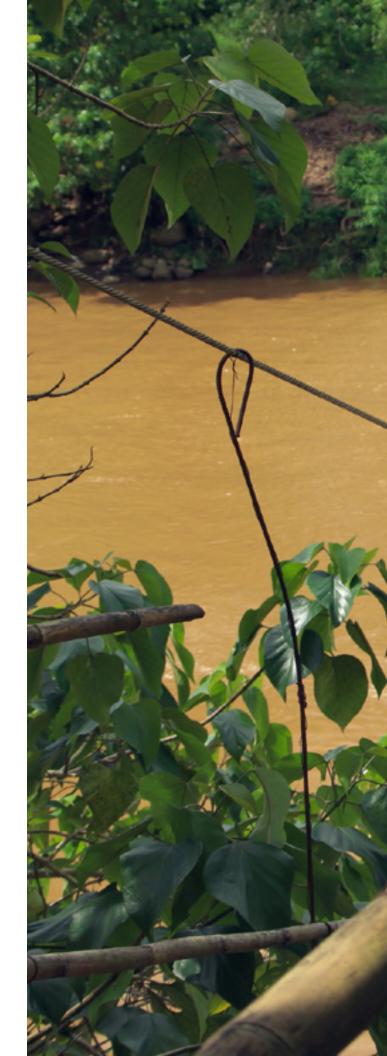


Building Bridges

When recovering from a natural disaster, the rebuilding of homes, farms, fisheries, roads, bridges, and other infrastructure plays an important role in a community's resilience. Communities who have no access to food sources may lose trade and livelihood, and can fall into poverty, hunger and sickness.

For a small town in Tagbina, Surigao del Sur, building a concrete bridge helps villagers pull themselves out of poverty. In Baungon, Bukidnon, the entire town constructed a footbridge in order to reach their municipality. In Kalamansig, Sultan Kudarat, children can now attend school safely, passing through their new hanging footbridge. And in Dingalan, Aurora, the gabion walls help protect their entire town from flash floods and typhoons.

The rehabilitation of small-scale community infrastructure such as waterways, dikes, roads, drainage systems, and bridges helps restore progress and development in every community. This is one step forward towards economic growth and the alleviation of poverty.





Small Town in Carpenito Tagbina Makes a Huge Step Towards Resiliency

Tagbina, Surigao del Sur

hen Typhoons Pablo and Sendong flooded barangay Carpenito, it washed out all of the livestock and crops of the community, and isolated the barangay from the rest of Tagbina, Surigao del Sur.

Identified as one of the most vulnerable communities for heavy flooding, many organizations such as Kasilak Development Foundation, helped educate residents in disaster mitigation.

Barangay Carpenito is located in the far-flung part of Tagbina, Surigao del Sur, and home to more than 1,306 residents (PSA, 2015). Barangay Carpenito lies along the side of Hinatuan river, which is very susceptible to rising water and flash floods during heavy rains.

Since 2018, the DSWD's RRP CFW program trained the community to manage the river beds with partner organizations, and strengthened their five-year mitigation plan.

The community constructed a concrete bridge, and planted Mosisi trees along the Hinatuan riverside. They started communal gardening to produce their own food and avoid scarcity during disasters.

"Before, the residents did not care about the environment. They cut trees along the riverside. But now we implemented ordinances that prohibit cutting trees along the riverside and in other parts of the barangay," Barangay Chair Rose Niña Juan shared.

The entire barangay was encouraged to support tree growing, instead of just tree planting, to preserve the Hinatuan River and everything that surrounds it. They were also tasked to grow tree seedlings, create their own vegetable and fruit garden, and make tree guards. The produce from the garden was eventually sold to the community.

Carpenito's Barangay chair identified three main indicators to determine their holistic success: first was the economic empowerment of women and additional income to affected employees during the pandemic; second was an increase in the beneficiaries' knowledge on climate change mitigation; and lastly was the beneficiaries' strengthened engagement and participation towards environmental protection.

Barangay Carpenito may be just a small town in Surigao del Sur, but it made a huge step towards disaster resiliency.







n the afternoon of December 22, 2017,
Tropical Storm Vinta's heavy rains and strong winds forced Baungon, Bukidnon residents out of their houses, walked through flooded roads, and crossed surging rivers to find safety. The flood went as high as the bridge, washing out their only safe passage.

When the bridge was destroyed, the adversities doubled. Residents needed to ride a bamboo raft just to pass through the river. The cost to transport goods increased from PhP 25.00 to PhP 50.00 per sack.

Learning from this disastrous lesson, the community of Baungon became active volunteers for DSWD's Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS) and started to plan and implement community-driven projects to reduce the risk of disasters caused by climate change. They also became grateful recipients of DSWD's RRP CFW.

On April 2018, the beneficiaries and community volunteers built a footbridge so their village can pass through and reach the municipal proper safely, and also transport their goods at a lower cost.

Today, the community uses a new footbridge provided by the national government. They transferred the old footbridge to another Purok to help other residents pass through the river. The footbridge is one step towards a bigger and better change for Baungon.

Manobo Villagers Build a Bridge Towards Their Dreams

Kalamansig, Sultan Kudarat

At an early age, young Manobo school children from Sitio Metugsay, risk their lives enduring four kilometers of trekking hills and crossing the river to reach school.



During rainy season, school children dangerously wade through surging flood waters and strong currents or take longer alternative routes. Nothing is more important for day care teacher, Lourdes Belamia, than to see her students safe in their classroom everyday. "I am always worried during rainy days. Some of my learners would miss class after a flood and would simply drop out later on. We really need a safer way for our tribe," Teacher Lourdes said.

As one of the far-flung coffee capitals of the town, Manobo farmers in Sitio Metugsay would be cut off for days and could not deliver their produce to the market or buy basic necessities. The sitio has one unstable foot bridge that is risky for people to cross on a daily basis, and most dangerous to cross during rainy season.

Kalamansig was chosen as a beneficiary of DSWD's RRP CFW in 2018. The entire town agreed to construct a hanging foot bridge to benefit all the 100 families in their village. Within ten days of the combined efforts and cooperation of the community, they achieved their goal.

"Farmers of the indigenous people community will not have trouble going out of the Sitio to sell their coffee and corn. Aside from this, the salary received from the program helped their family's daily needs." Teacher Lourdes narrates.

Because of the hanging footbridge, Teacher Lourdes no longer worries about the safety of her students going to school. For her, this also bridges her young Manobo students dream to finish school.





Gabion Walls For Dingalenos Resiliency

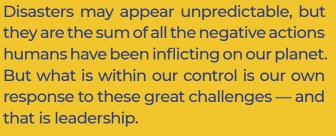
Dingalan, Aurora

When heavy rain falls over Dingalan, Aurora, residents from Barangay Davil Davilan to Poblacion always worry the river might overflow, and they would need to evacuate to a safer place. The Province of Dingalan is surrounded by mountains, which makes the towns prone to flash floods, landslides, and incoming typhoons.

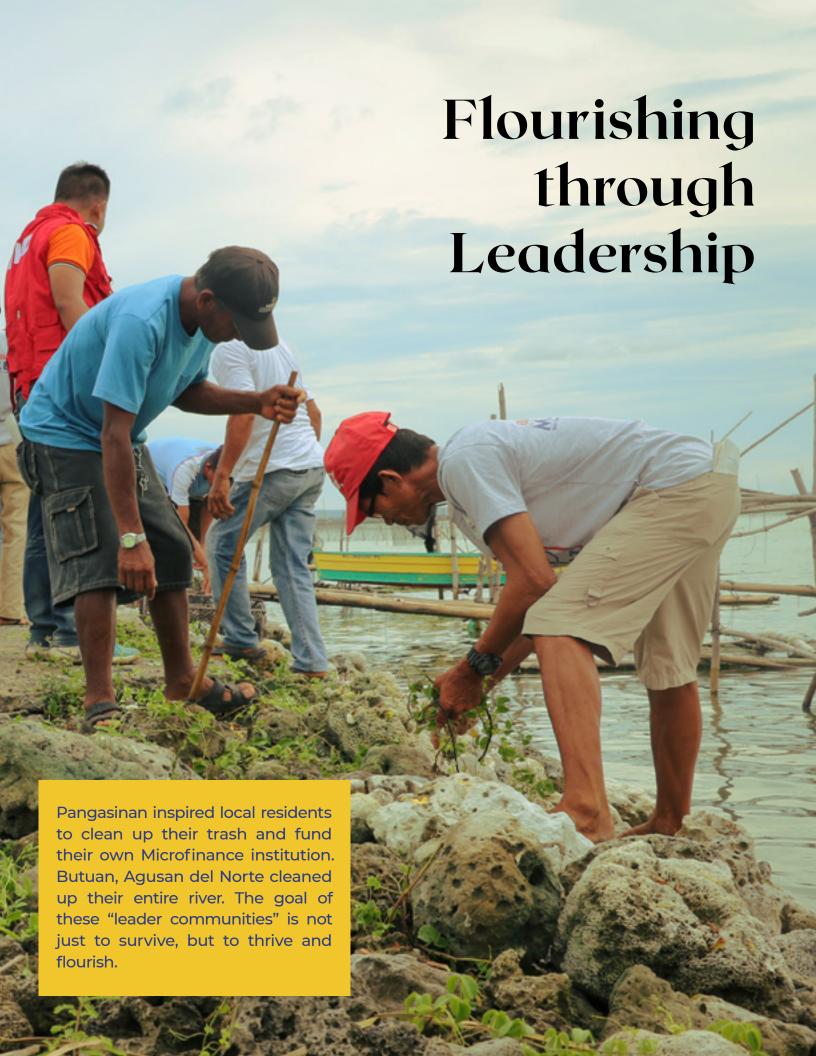
In response to this, the municipality of Dingalan participated in DSWD's RRP CFW project to install gabion walls beside the river in Barangay Davil Davilan in 2017. After proven effective, they expanded the stacks, and covered the whole river until Barangay Aplaya.

Barangay captains served as the maintenance and evaluation officers of the project. Barangay Captain Abner Narciso of Davil Davilan says, "Residents volunteered to make this gabion project successful. They witnessed how the typhoon hit us in 2014. Even after the implementation of RRP CFW, the residents still haul and stack."

Aside from the ultimate goal to address climate-related risks, the gabion project assured safety among its residents. "We are no longer fearful, and can now sleep well at night," shared Barangay Captain Leo Agustin of Barangay Aplaya.









The assessment identified the municipalities of Solsona and Dingras as high-risk areas where soil erosion, flooding, and drought are prevalent. The majority of the forest cover was denuded due to cutting of trees for human and commercial purposes, destroying Ilocos Norte's forests, coastal habitats, and vegetation.

The Barangay Ranger Officers (BROs) nurture seedlings, patrol and guard forest areas against illegal logging, forest fires, and slash and burn operations (kaingin) to increase seedling survival rates. Many of the former perpetrators of kaingin were rehabilitated as BROs.

Around 3,000 BROs were employed on a quarterly rotational basis, with a total of more than 11,000 BROs yearly who receive a PhP 3,000 monthly allowance as their source of income.

But with limited funds, the Provincial Government tapped DSWD Field Office I to support the BROs through an RRP CFW ten-day program. In 2018, approximately 7,000 hectares, (2,024 in Solsona) were planted with 244,750 fruit tree seedlings. 711,000 forest tree seedlings were planted on 735.50 hectares.

The reforestation efforts of the BROs boast an 80-90% seedling survival. The BROs rehabilitated denuded watershed areas, established green walls, and the mangrove plantation site. They were provided with income-generating activities, planted various fruits and vegetables for a stable food supply for Ilocos Norte, and produced their own seedlings and fertilizers.

As the Province's forests expanded and safety measures protected the area, both locals and tourists can safely visit the mountains for hiking and glamping (glamorous camping), knowing that the BROs are around to guide and patrol the area.

In recognition of the impact and success of the BROs in the Green wall, the Provincial Government of Ilocos Norte hired additional BROs to plant, care, and maintain a forest of mangroves along the shorelines of Laoag City, Badoc, and Currimao, dubbed as the "Blue Wall of Ilocos Norte."

In Gabu, Laoag City, the coastal barangay successfully planted and grew more than 20 hectares of mangroves that helped ensure greater food security, improved protection against natural disasters, increased household incomes for local communities, and sustained climate stabilization.

"The assistance we received from Cash-for-Work helped us cover for our household needs. But greater than this, we were able to help care for our barangay."

— Everlina Agrade

Member of Saguigui Tribe Council Incorporation, an Indigenous Peoples group at Barangay Saguigui, Pagudpud, Ilocos Norte.

"Our RRP CFW Project started in August 2018 here in Pagudpud. We planted forest trees and fruit trees for the benefit of future generations. DSWD's CFW is good because it provided jobs in our community. The government works beautifully especially when DSWD and ENRO works together to truly help our community. This is the best from our leaders."

— Emilio Rabago BRO



A Future-Proof Solution

La Paz, Tarlac

Paz, Tarlac. The municipality's geographical location, worsened by improper waste disposal are factors to this disaster. In response, the municipality actively participated in DSWD's RRP CFW program for canal dredging, declogging, or clearing, which eventually turned into a Materials Recovery Facility (MRF). The beneficiaries collected garbage, and segregated plastics and glass, to make hollow blocks and bricks.

In accordance with the waste management ordinance, every barangay has an MRF that segregates household waste. The collected wastes are sent to the Municipal MRF, and processed using a specific technology. The biodegradable materials are used as fertilizers, plastic and glass are used as pavers or bricks, and the remaining unused wastes are transferred to the landfill.

The municipality aims to turn this project into a micro-enterprise. "The waste you once thought as useless and a problem to the community is now a source of income for the residents of La Paz," said Municipal Social Welfare and Development Officer Eunice Ocampo.

Through this project, the residents of La Paz changed their waste segregation practice of burning trash.





Self-Help Grows Into a Microfinance Institution

Anda, Pangasinan

ore than 1,500 beneficiaries of RRP CFW's project created the Anda Self-Help Group (SHG) Microfinance in 2017. SHG is an institution that provides investment and production credit to promote various developmental activities of the municipality.

The benificiaries completed their ten-day CFW activities, such as fish pen demolition, mangrove plantation and rehabilitation, coastal clean-up, and community gardening. Upon collecting their earnings, they allocated their one-day CFW wage (PhP 190) for their annual Congress (PhP 90) and seed funding for their microfinance company (PhP 100).

Members can loan a maximum of PhP 10,000 and a minimum of PhP 3,000, payable in six months, for income-generating activities, children's school fees, and home needs. Compared to the 3% to 10% interest rates of existing microfinance institutions in their locality, the Anda SHG Microfinance charges a minimal interest of 1.75% borrowing rate.

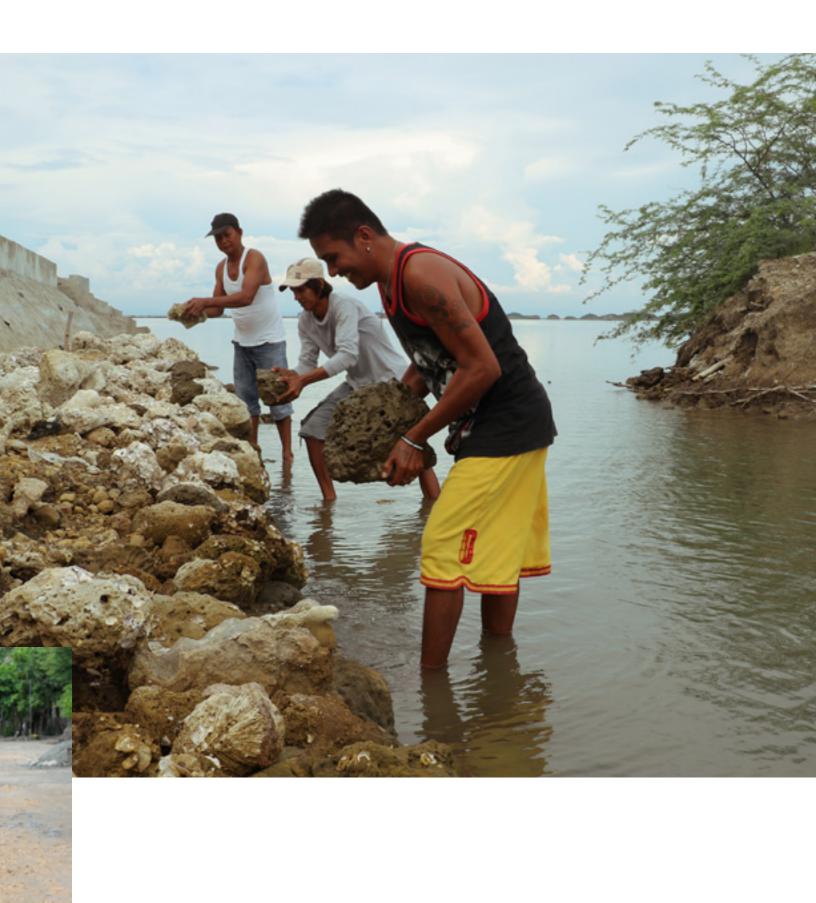
Patterned from the Self-Employment Assistance – Kaunlaran (SEA–K) of DSWD, individuals pay a weekly capital amortization and share a weekly PhP 5 equity capital build-up. This strategy was designed to encourage members to pool their savings regularly, maximize it as loans, learn to be financially disciplined, and establish a good credit background. "Now, many of our members improved their livelihoods because our microfinance charges only a minimal interest, and we teach them how to save. To ensure that their loans are properly used, our community facilitators from different barangays regularly monitor them," shared Cristy Castrence, Manager of Anda SHG Microfinance.

The manager disclosed that one of the primary objectives of their institution is to eliminate loan sharks, and multiple loans from formal microfinances. This type of predatory lending has high interest rates that make the poor borrower even poorer.

As of June 2019, Anda SHG Microfinance has more than 2,000 members, a revolving fund over PhP 1.2 million, and plans to register with the Securities and Exchange Commission (SEC).

Other than establishing Anda SHG Microfinance, the other accomplishments of RRP CFW's projects are: demolishing 80% of fish pen units, clearing the Caquipotan Channel for marginalized fisherfolk; the continuous rehabilitation of mangroves; and establishing the SHG Neighborhood Vegetable Garden, which provided food during pandemic and earning from excess produce sold in the community.





In January 2017, over 2,303 families evacuated their homes after Agusan river's water reached critical levels from torrential rains. Residents surrounding the river were always encouraged to relocate because of the dangers of flash floods and rise in water levels. Among those communities is Barangay Mahogany, with over 1,259 households.

One of the reasons for the heavy flooding is the rapid increase and spread of water hyacinths and garbage that clogs Mahogany Creek. The water hyacinths were so thick, it was difficult for fishing boats to pass.

Water hyacinths are considered as pests by the DENR. They are aquatic weeds that feed on pollutants and are in full bloom in polluted waters.

Because of their vulnerability towards floods, the residents proposed to use the DSWD's RRP CFW's assistance to clean and unclog Mahogany creek. The barangay partnered with private companies, who provided a backhoe loader and additional labor compensation for the barangay beneficiaries.

After cleaning up the river from garbage and water hyacinths, children enjoy swimming in the cleaner waters, fishing boats can pass by Mahogany creek, and even fish for food.

The barangay plans to promote responsible tourism, by collecting plastic bottles to construct floating cottages that would pass by Mahogany creek. This promoted tourism, recycling, and waste segregation. These initiatives made residents worry less about water flooding and more conscious of garbage disposal.









Field Offices



NCR

CAR

CARAGA











FO IV-A

FO VI



















