

Renewable Energy Access for off-grid Communities and Households

NEWSLETTER



Solar energy REACHes Mapanas

Last August 2021, the Renewable Energy **Access for off-grid Communities and** Households (REACH) **Project led by People** in Need (PIN) Philippines installed the first batch of solar home systems in **Barangay Magsaysay** and Sitio Pangudtan of Mapanas, Northern Samar.

They kicked off the installation in partnership with NORSAMELCO, and the renewable energy (RE) technology supplier, POWER 4 ALL, who assisted in the process and training of locally-based RE technicians. By the end of the first two weeks, 86 households had fully-functioning units to power their lights, flashlights, radios and cellphones.

Despite the inaccessibility of the area due to underdeveloped roads, their local elementary school remains closed due to government COVID-19 protocols. Therefore, children must learn through modules. This is a challenge for parents who must work all day before they can teach their children. Once the sun sets, however, it is too dark for them to properly see their assignments. Some only use

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gas lamps to illuminate the room during dinner, while others resort to the generator which is loud and costly.

Today, they no longer have to worry about struggling to work or study at night. "In our barangay, we don't have electricity," says Mila Rebato, a 37-year-old daycare worker in the barangay.

"I am grateful that through these solar home systems, we will finally have lights in our homes. It will help our children in their schooling to read their modules."

They are free to go about their errands with RE lights, and even walk the streets at night without fear of tripping or losing their way.

The Community Electricity using Solar Power Association (CESPA) duly-recognized organization NORSAMELCO is assigned to manage and maintain the operations of the solar home systems. There are six officers in charge of ensuring that every member abides by the rules and regulations of the program. Rosita Bacolongan, the CESPA auditor says, "I feel very grateful because I can talk to the members about what is happening with their money." Like the other officers, her service ensures that the program will remain sustainable for years to come.

Access to light is not only a necessity, but a right for every Filipino. Through the REACH Project, we're ensuring that clean energy travels to the farthest areas so that everyone is given equal opportunities towards a brighter and more RE-silient PIN. in partnership NORSAMELCO, takes pride and pleasure to be a major contributor towards this goal with the financial support extended by the European Union (EU) through the Access Sustainable Energy Programme (ASEP).



Marubay, a model community for RE solar-powered solutions

(excerpts from Dr. Edwin Celestino's 'Case study of the Marubay rural renewable energy technology')

The Barangay Marubay Solar Powered Water System Project came to be as residents struggled for convenient access to clean and safe drinking water. For almost a decade, they had no form of a centralized water distribution, and were instead forced to obtain water from shallow wells situated downstream. This created a high-risk for the community's health as those who drank from this water were prone to water-borne illnesses.

In 2010, **Jose Pepe Mendoza** was elected as Barangay Captain of Marubay, along with the new set of barangay council members. They decided to convert and put to use the photovoltaic panels (PV modules) donated by the **Australian government** through the **Samar Integrated Rural Development**











Project (SIRD) into a water system using the eight panels with a capacity of 17 watts each.

To further address the rural electrification and the lack of access to clean and potable water, the Barangay Marubay Council invested in eight (8) PV modules for street lightings, and to power the submersible water pump for the water supply system. Marubay also made use of their Barangay Development Projects (BDPs) fund towards the provision of water facilities, and invested additional funding derived from the users' fees. The water storage tank was mounted behind the Barangay Hall using RE technology.

The Marubay water supply system is an engineered solution that operates through the social cooperation of the community. Focus group discussions with the residents revealed that there was direct community participation in decision-making of the water system. The barangay council was quick, efficient and responsive to their needs, for instance, in the case of repairing damaged systems and buying new parts. All transactions of the barangay were monitored by the the treasurer who provided transparent monthly financial reports on the operation and maintenance of the water systems. They adhered to rules-based decision making, and abided by the principles of morality about right and wrong in barangay dealings.



Overall, the study served as a prime example of the benefits of RE towards good government public services. The study yielded the following recommendations: (i) need for investment in RE technology, (ii) the incorporation of local government units in its development and deployment, (iii) the creation of a strong communication and advocacy campaign on RE in public services, and (iv) the identification of internal people who can oversee the management, operation and maintenance of such RE systems.

These findings were presented by **Dr. Edwin** Celestino last August 2021 in a symposium entitled, 'RE-defining Energy: Creating Synergies in Adopting Renewable Energy Solutions'. Ms. Kathlyn Sumaylo-Pearlman also presented her study, 'Baseline Assessment on DRRM Gaps and RE Resiliency in Northern Samar'





ATTENDEES of the advocacy symposium pose for a group picture in the University of Eastern Philippines (UEP) Auditorium.

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virtually. Stakeholders from government, non-government organizations, the youth, media, the academe, and NORSAMELCO were in attendance

This is only the first step towards the formalization of an RE council to guide the province in making the switch to RE. Through the Marubay RE water systems, there exists a community that can be emulated by the rest of Northern Samar as a model for sustainable innovation in development. \P

campaigns, and other fun activities such as a 'trash fashion show' and 'ginto at hiyas ng kalikasan' (eco-pageantry) that will accelerate the promotion of these advocacies.

orientations

dissemination

ANYARE, the youth group advocating for RE

The 'Awareness Campaign on Renewable Energy and Climate Change adaptation for the Youth' was a whole-day event in Silvino Lobos organized by Entrepreneurs du Monde (EdM). This initiative marked the launch of the 'Active Nortehanon Young Advocates for Renewable Energy' (ANYARE!), a youth group primarily composed of SK Chairpersons, who are considered active participants and future leaders of social engagements. The youth members in this activity were expected to help in promoting RE and boosting climate change awareness among their co-youth and the entire community. This manifestation of concrete advocates or movers of this advocacy will be replicated in other municipalities, barangays and sitios.

The ANYARE youth-group proposed the development of plans towards protecting the environment through activities such as regular river

MS. SAGADAL, from PYDO, addressing the SK Chairpersons.



Champions, Communities, Taking Lead on ICBDRRM-RE

clean-ups, proper waste management

planting activities, RE information

and

barangays,

promotional

to



MI begins the community rollout of Modules 1-3 in Brgy. Cagmanaba, Mondragon.

Malteser International (MI) has set forth the integration of RE through the Inclusive Disaster Risk Reduction and Management (ICBDRRM) in Northern Samar, utilizing a system that is already a fundamental framework to the ways of life in the community: The People's Process Approach.

The People's Process Approach is a strategy that balances people, process and technology, which drives efficient transformation and









management actions in an organization. This system was utilized to amplify community support and impact on policies. This approach basically promotes active participation of vulnerable sectors and MI Community Champions.

The institutionalization of communities through empowerment mechanisms is a core milestone of MI for the REACH Project. Hence, MI has put in its best efforts to strengthen Barangay Disaster Risk Reduction and Management Committees (BDRRMCs) through reactivating and reorienting the structure and its mandated responsibilities in the community. This includes the birth of 'Malteser International (MI) Community Champions' as force multipliers capacitated through Training of Trainers (TOT). Additionally, the continuous awareness raising and

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PARTICIPANTS convene in the ICBDRRM – RE Training of Trainers Part 1: Birth of Champions at Balay Padi, Brgy. Makiwalo, Mondragon.



MRS. OLIVIA DELOS SANTOS participates in the training in the Brgy. Hall of Cagda-o, Silvino Lubos.









Making the switch from gas to solar

At present, **Entrepreneurs du Monde (EdM)** operates in Silvino Lobos, Northern Samar, where most of its barangays are difficult to reach and considered geographically isolated and disadvantaged areas (GIDA) in the province in terms of accessibility, insurgency, education, livelihood and access to electricity.

One of the local barangays is Cagda-o, where Olivia Delos Santos resides. Previously, she was accustomed to living with electricity because she grew up in Cavite. When she married a man from Cagda-o, they moved there to raise their five children. It was very painful for a mother like her to see her children struggling in school due to lack of proper lighting.

Despite the expense, they worked hard to afford a generator set to provide light after dark because it was necessary for their children to learn. However, using this caused chest pains for the little kids due to the smoke coming from its exhausts. It was also very noisy, and cost them a lot on maintenance because the machine would often break down.

"When we found out about the REACH Project, we immediately decided to subscribe because we knew it would be a big help for those like us," shared Delos Santos.

"Now, we are only paying PHP 240 per month for 4 bulbs that could light up the entire house for the whole night."

This translates to only PHP 8 a day for the family to light up their home. When they were using the generator, they would spend PHP 100 for 3 hours of light. "It is so much cheaper and safer for my kids now," she continued. "We also got rid of the smoke and noise pollution, and we are now totally free from danger. Additionally, it comes with free trainings that we could use for our daily lives. What's best of it all is that we can now put in extra savings for our children's future!" Grateful for this initiative, Delos Santos encouraged everyone to grab this once-in-a-lifetime opportunity.

Meet the RE Micro-Entrepreneurs of Northern Samar

As part of the REACH Project's efforts to fund the rural development of off-grid communities, PIN Philippines is providing solar energy RE solutions for productive use of community-based organizations and businesses. This initiative hopes to improve the livelihoods of residents by giving them a sufficient and reliable source of energy that can easily withstand the frequent typhoons that pass through Northern Samar. These are the stories of some of the recipients of the RE photovoltaic solar systems:

ROBASAN FARMERS IRRIGATORS ASSOCIATION (IA), INC.

Jaime Villaceran is the president of the Robasan Farmers IA, Inc., a community-based organization made up of local farmers in Las Navas, Catubig. Frequent typhoons led to the destruction of their meeting places, farm machineries and vermicast production areas, where they breed African night crawlers to produce organic fertilizer for their crops. Although there are nearby electric sources. their office has no connection to the lights due to the lack of a transformer. Irrigation is powered instead by gravity from a dam it can only flow into one side.

With the REACH Project, Villaceran hopes that they can effectively power a solar power irrigation pump. "With access to water for farming," he says, "you can plow an even bigger field." This addition will increase their produce by double the amount, since it will allow them to farm even in the elevated areas. They will also be able to do rice cropping twice a year, instead of having to wait for the seasons to change.

"We need renewable energy. I see that in Poland, Switzerland and other foreign countries, this is already the standard with the households there. We know that there are both advantages and disadvantages but once this project is implemented here, we can study this and learn from it."



Wenefreda V. Ramos began cooking cassava chips when she attended seminars and trainings organized by the government about starting her own livelihood business. The processing and packaging of her products underwent major changes since its humble beginnings in 2017. She learned how to expand from just one flavor to six, changed the shapes of the chips to make it more appealing and delicious, purchased better processing machines, and was offered help by the Department of Trade and Industry on the package design.

However, her journey was not without its own problems. In 2018, she lost her house and all the equipment for her business to Typhoon Nona. It took

CASSAVA CHIPS











"In our area, our biggest problem is poverty, and I think the solution to this is agriculture. We work because we need money to eat, but when we learn how to farm our own food, we get rid of the barrier between working and eating. This provides directly for sustenance, and the rest can go to our other necessities and wants."

At 33 years old, Marcelino L. Padilla is one of the youngest recipients of the solar panel systems for community-based businesses. He is a local farmer and owner of Marmar's Integrated Farm located in Brgy. Lawaan, Lao-ang, Northern Samar. As a young boy whose parents were both farmers, his source of happiness would come from playing catch on the rice fields and helping out with the harvest. Everyone he knew was a farmer, and this encouraged him to pursue this. It was only when he entered school, he learned about teachers, then doctors and engineers. Despite initially working in the health sector as a registered nurse, he eventually decided to return to his first love of being on the field, and started his own integrated farm.

MARMAR'S INTEGRATED FARM



As a strong advocate of young people in agriculture, he holds training sessions in his farm where he teaches them how to turn farming into a business. Through the REACH Project, he will be able to train these students more effectively by powering the projector, laptop, and speaker for his workshops. He also hopes to include a freezer and incubator to support production of native chicken and rabbit meat.



her around five months to build back her home before she could even think about restarting the processing of cassava chips. She then joined trade fairs that took her to Lao-ang, Tacloban, and even Metro Manila. Soon, orders started pouring in through word of mouth. Through the REACH Project, she hopes that she can extend her work hours to even after dark by allotting solar energy for lights, the cassava slicing machine and the bond sealer for the

"For those who are entrepreneurs like me, I advise you to work hard, and have perseverance and strong faith that your business will improve. Cassava is rich in vitamins and carbohydrates, so I encourage everyone to buy this, and have a taste of Northern Samar.









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workshops on ICBDRRM and RE, social community mobilization, budget planning, and facilitation all adhere towards the goal to mainstream the capacity of the community to organize and manage itself proactively. Community ownership and engagement through participatory decision-making has demonstrated unprecedented success in contributing to the project's long-term viability.

On the ICBDRRM implementation at the barangay level, MI Community Champions and BDRRMC members took the lead on planning the three-day ICBDRRM roll-out training for modules 4-6. This included logistical arrangements, budget projections, manpower reinforcement and co-facilitation of topics which they can re-echo. Meanwhile, the MI team focused on coaching and mentoring them to help improve their skills and gain confidence on the processes and approach introduced to them.

Currently, the REACH Project is in progress of developing the **Barangay DRRM Plan** for year 2022. Based on the present analysis, the the BDRRM Plan will be more participatory, sustainable, practical, and realistic.

The tender of **35** sets of **2** KW Hybrid RE Solutions is soon to be finalized. This technology will be installed in public facilities such as evacuation centers, barangay halls, health centers, and schools. These are anticipated to be utilized before, during, and after a disaster as alternative systems of community power sources. Moreover, while campaigning for a more proactive approach to disaster preparedness, this hardware is encouraged to be operationally

incorporated into their **Inclusive Early Warning System** (**IEWS**). In addition, the project will provide DRR Kits such as handheld radios, megaphones, spine boards, first aid kits, 500 Watts portable solar panel, and other supplies to the recipient barangays as additional disaster preparedness promotion. Lastly, with the help of TESDA, the project will also train **110 local technicians** pre-identified by the community to maintain the solar equipment.

Through the REACH Project, MI believes that communities will be able to create and expand a sustainable, self- reliant and proactive 'spark' towards an empowered, resilient, zero-casualty community and people.

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