Zero Waste Academy

STORIES OF IMPACT
GAIA (Global Alliance for Incinerator Alternatives) is a network of grassroots groups as well as national and regional alliances representing more than 1,000 organizations from 92 countries.

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- Mother Earth Foundation for being our co-implementer of various iterations of Zero Waste Academy and for allowing the use of their 10 Steps to Zero Waste implementation methodology as the main module for the workshop
- YPBB and Vietnam Zero Waste Alliance for co-implementing with GAIA localized iterations of the academy in their own countries
- War on Waste - Break Free From Plastic Negros Oriental for hosting and co-implementing the second batch of Zero Waste Academy in Dumaguete

We also appreciate all the graduates of the Zero Waste Academy who have taken part in this initial step in documenting the impact of the Academy by sharing their success stories.

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FOREWORD

GAIA Asia Pacific, in partnership with Mother Earth Foundation, has been conducting a capacity building workshop to capacitate members of the network and government officials to implement a community Zero Waste program since 2017. Called Zero Waste Academy (ZWA), the workshop is an immersive 10-day course aimed at capacitating members and other stakeholders on how to implement a Zero Waste program in their respective cities and communities. Putting emphasis on experiential learning, the course provides a well-thought-out mix of lectures, hands-on exercises, site visits and community engagements, demo-sessions, and networking opportunities.

Thus far, five in-person ZWAs have been conducted from 2017 to 2019.

In 2020-2022, GAIA Asia Pacific and Mother Earth Foundation conducted other iterations of the academy, albeit virtually because of the lockdowns imposed by governments. YPBB likewise held other Zero Waste Academies on their own to support AZWI members in implementing Zero Waste in their communities.

As in any workshop, an important measure of success of the workshop is how the graduates apply in their own contexts the lessons and skills they gained from their participation. GAIA Asia Pacific is immensely proud that five years since the first in-person ZWA, and three years since the last one, many of our graduates continued to champion Zero Waste in their own communities and countries, and that many of them even spearheaded innovative and impactful Zero Waste initiatives and/or led campaigns such as plastic-free and anti-WTE campaigns.

This publication is an initial attempt to document the work of our graduates to understand the impact of the academy on their work and in their communities. This volume is not exhaustive — our intention is to periodically check on our graduates to celebrate their success in their own communities.

May you be inspired by our initial offering. Our graduates, without a doubt, are making the world a better place. But do not take our word for it; read the pages of our publication and see for yourself!

THE MULTIPLIER EFFECT OF THE ZERO WASTE ACADEMY

Six years after GAIA Asia Pacific and Mother Earth Foundation launched the Zero Waste Academy in May 2017, models have been developed not only in the Philippines, but also in other countries in Asia and beyond through the leadership of the ZWA graduates. These models integrated hundreds of waste workers and waste pickers in the Zero Waste system, instituted segregated waste collection and waste assessment and brand audits, established materials recovery facilities, and regulated single-use plastic, resulting in improved solid waste management, waste reduction, and Zero Waste jobs generation.

2 ZERO WASTE ISLANDS IN THE PHILIPPINES

- Apo Island, an Island barangay in Dauin, Negros Oriental
- Siquijor Island, an island province consisting of six municipalities
- 5 Barangays in Dumaguete, Negros Oriental

6 MODELS BEYOND THE PHILIPPINES

- Bandung, Indonesia
- Cimahi, Indonesia
- Bali, Indonesia
- Dar es Salaam, Tanzania
- Hoi An, Vietnam
- Four municipalities in Ghana spanning the Ashanti region and two major cities: Accra and Cape Coast

Besides model building, graduates have likewise conducted their own version of the Zero Waste Academy to capacitate their staff and partners in implementing a community Zero Waste program. Some localized ZWA focused on implementation, while others focused on policy campaigning. More ZWAs were conducted by graduates, resulting in more and more Zero Waste implementers and advocates reaching out to more people and making program implementation possible.

- One in Vietnam
- Two in Indonesia

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ZERO WASTE ACADEMY: STORIES OF IMPACT

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- Two in Indonesia

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Not too long ago, they were students eager to learn how to establish Zero Waste programs in Philippine communities. After graduating from Mother Earth and GAIA’s Zero Waste Academy, they are now Zero Waste champions, transforming communities and cities into Zero Waste models, bringing their communities’ realities to national and policy spaces, and campaigning for Zero Waste solutions. Our graduates are at the forefront of making Zero Waste possible!
ANA LE ROCHA

The Power of Community Engagement and Empowerment

BY ERIC MICHAEL SANTOS

Ana Le Rocha, executive director of Nipe Fagio, a leading civil society organization in community engagement for solid waste management and policy advocacy in East Africa, describes waste management in Tanzania as a systemic problem requiring a systemic solution.

“Tanzania has a law that mandates waste segregation at-source. However, the reality is, in a city like Dar es Salaam which has a population of about 7 million, less than 40% of households have any sort of waste collection. The majority of households have no reason to segregate at-source because they know nobody is going to collect their waste,” she said.

Dar es Salaam, the largest city of Tanzania and in East Africa, produces over 5,600 tonnes¹ of waste each day. Only 40% of the city’s waste is collected, and most of the collected waste is mixed and ends up in an unsanitary dump site. The rest is burned, buried, or dumped illegally, often clogging waterways, contaminating soil, and increasing urban air pollution. Most of the collected waste doesn’t actually have to be disposed of in the dump as these could be reused, recycled, or composted.²

A United Nations report stated that “waste management is gradually becoming a serious concern in Tanzania due to limited sorting at-source and improper storage, collection, transportation, treatment and final disposal. The waste management problem is more pronounced in squatter settlements, where 70-80% of the urban population resides without the necessary infrastructure and social services.”³

Ana pointed out that the geography of urban squatter settlements poses a challenge. “It’s not easy for garbage trucks to go to these areas. Also, low-income households cannot afford the waste collection fees collected by private companies,” she said.

She added that in rural Tanzania, there is rarely any kind of waste collection.

LEARNING FROM THE ZERO WASTE ACADEMY

Nipe Fagio is a Swahili phrase that literally translates to “give me the broom”. The symbolic phrase represents the organization’s mission to empower society with knowledge to create habits,

¹https://www.nipefagio.co.tz/categories/zero-waste/
²https://www.nipefagio.co.tz/categories/zero-waste/

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1. https://www.nipefagio.co.tz/categories/zero-waste/
2. https://www.nipefagio.co.tz/categories/zero-waste/
DECENTRALIZATION AND COMMUNITY ENGAGEMENT

The way Nipe Fagio designed their community-based, cooperative-led Zero Waste model, Ana revealed, was inspired by what she learned from the ZWA. She recalls posting the module used in the Academy in their office in Dar es Salaam, the “10-Step Manual in Implementing a Community Zero Waste Program” developed by Mother Earth Foundation, a non-government organization that co-implemented and co-designed the ZWA with GAIA Asia Pacific.

“Every member of our implementation team had to learn the 10 steps. From our learnings in the Academy, we developed a decentralized system adapted to the realities in Tanzania and less reliant on the local government. It has been implemented in Dar es Salaam and Arusha since 2019,” Ana shared.

The Nipe Fagio Zero Waste model enforces household-level, at-source waste segregation for four types of waste. Residents receive training and an orientation on at-source segregation of solid waste. They are also provided with supplies such as a bucket for organic waste and sacks for other kinds of waste. To facilitate model ownership, cooperatives are formed at the street level consisting of local waste pickers and community members, including women and youth. Members of the cooperatives conduct scheduled door-to-door segregated waste collection. Only segregated waste is accepted and collected from the households.

The collected waste is brought to a local materials recovery facility (MRF) where organic waste — an average of 1.5 tonnes per day — is subjected to different types of composting, such as the use of black soldier flies to produce chicken feed. All recyclables are further segregated and stored until an appropriate amount is accumulated for collection by a local recycling company. Residual waste is likewise stored prior to disposal in a dumpsite in Dar es Salaam and a landfill in Arusha.

Nipe Fagio works in 17 regions of Tanzania, and currently has operations in Dar es Salaam and Arusha. The organization is looking to expand its work to port cities of Mwanza and Zanzibar in 2023. Ana shared that most people do not have much confidence in low-income households in Tanzania to be able to do waste segregation at-source. “After my ZWA experience in the Philippines, we decided to go ahead and give our host communities a chance. Compliance turned out to be the easiest part of the program implementation,” she said.

The Nipe Fagio Zero Waste model has a remarkable 93% compliance rate for waste segregation at-source.

“We are able to recover between 80% and 85% of all the collected household waste, and the rest are transported to the dumpsite and landfill. We recover about 90% of the collected organic waste,” Ana shared.

MAKING ZERO WASTE TANGIBLE

According to Ana, the ZWA gave her a vision of creating an integrated waste management model that deals with all kinds of solid waste in low-income neighborhoods. She believes that one of the Academy’s main roles is making the Zero Waste philosophy more accessible to participants.

“If Zero Waste is tangible to the implementers, then it becomes tangible to the beneficiaries. Consequently, host communities develop a sense of pride in being part of the Zero Waste work,” she said.

Ana is open to revisiting the ZWA and taking a new, more intensive course. “You never know enough; you can always learn more. Participating in the Academy also gives me the opportunity to share what we are doing in Tanzania with other Zero Waste advocates from other countries while learning from their experiences as well,” she said.
Rapid urbanization in African countries, combined with population growth and changing production patterns and consumption habits, significantly increased waste generation (expected to nearly triple by 2050). This recent trend is driving demand for more effective waste management services. In response, youth-led non-profit Green Africa Youth Organization (GAYO) has been working to establish community-led circular economy waste management, laying the foundations for a more resilient, Zero Waste Africa.

Since 2019, GAYO has been mainstreaming a practical Zero Waste strategy to help build sustainable districts, municipalities, and cities. This strategy was shaped by seven years of community work and GAYO’s participation in the Zero Waste Academy (ZWA), organized annually by GAIA Asia Pacific and Mother Earth Foundation (MEF). GAYO’s advocacy is grounded on the belief that “Zero Waste cannot be decoupled from sustainable development,” as Zero Waste is “at the center of job creation, climate action and environmental justice.”

FORGING ALLIANCES, MAXIMIZING RESOURCES

Founded in 2014 in Ghana, West Africa and composed of a small group (around 30 youth employees working with various interns and volunteers) with a large voice, GAYO is leading the conversation on environmental sustainability and climate action in Africa. The group has been active in high-profile international forums, including regular participation in the United Nations Climate Change Conference (Conference of Parties).

To foster youth engagement in climate change policy-making at the national level, GAYO partners with other organizations to establish Youth Climate Councils. So far, they have created one each in Ghana, Brazil, and Costa Rica. To raise awareness and spur action on pressing environmental issues, GAYO continues to work directly with “eco-clubs” in high school and university campuses in Africa. More recently, GAYO has been organizing informal waste workers, many of whom are female, and connecting them with other community actors to further enhance sustainable waste management practices.

The Sustainable Communities Project saw the launch of GAYO’s strategy document ‘Zero Waste Strategy: Ghana’ in October 2021. Following the pilot project in New Edubiase which commenced in 2018, GAYO replicated its Zero Waste model in four other municipalities spanning the Ashanti region and two major cities: Accra and Cape Coast.

“The common element is these municipalities are all struggling with waste management; they are all overwhelmed with too much waste, both plastics and organics. The other common problem is that they do not have enough finances to deal with waste,” said Desmond Alugnoa, Co-founder and Administrative Director of GAYO and a graduate of the 3rd ZWA that took place in Manila in 2018.

“When you show them how Zero Waste can indeed help them to minimize their spending on waste [while increasing employment], then it becomes something all of them are interested in.”

ZERO WASTE ACADEMY: VALUABLE LESSONS LEARNED

Desmond’s participation in the ZWA held in Manila, Philippines in 2018 inspired GAYO’s Zero Waste movement. “We realized we did not really have much of the capacity, including even technical knowledge, about some of the things around waste…I saw [the Academy] as an opportunity to gain more knowledge and perhaps get access to more resources to improve on the education that we were doing in the communities,” said Desmond.

Knowledge-sharing with other participants from different parts of the world gave Desmond the opportunity to shape GAYO’s ideation. “We had the opportunity to listen to various presenters talk about movement-building and the work of Zero Waste,” Desmond said.
Moreover, GAIA and MEF brought the ZWA delegates to barangays, hospitals, and schools that practiced Zero Waste. This immersion helped GAYO refine their Zero Waste strategy, from segregating waste in a materials recovery facility (MRF) run by the barangay, to designing community engagement for greater inclusiveness (e.g., accredited waste collectors and haulers plying a specific route and receive a regular salary and/or an allowance from the barangay, municipality, or city).

“The government is responsible for solid waste management so I think that the idea of working with barangays helped me when I got back,” said Desmond. “Another significant step: I realized that we had to integrate the informal waste pickers, and a lot of them were women. We were already working with youth, fisher communities and coastal communities. So integrating [waste pickers] gave us a better working relationship with all three: the communities, the youth, and the women’s groups.”

**IMPACT #1: LEGITIMIZATION OF WASTE WORKERS**

GAIO’s first hurdle post-Academy was to legitimize the informal waste workers in Ghana. For the longest time, these waste workers had operated in hiding and under terrible conditions — sometimes getting into accidents because they did not have a safe space for sorting, or were not wearing appropriate protective gear (e.g., reflective clothing at night). They were often subjected to harassment, neglect, and given insufficient payment for their services. Social stigma still had to be overcome.

Waste management companies viewed these workers as competition, district officers regarded them as nuisances, and medical personnel withheld treatment as these workers had no health insurance.

GAIO, in collaboration with the relevant municipal assemblies, worked to formalize the activities of the informal waste workers through the construction of “reaching out to the various waste picker groups, registering them, brought them together and gave them some level of power, some level of voice,” said Desmond, adding that the painstaking process of trust-building eventually paid off. “Government started showing more interest as a partner rather than an enemy. The multinational companies realized that they can integrate some of these people into what they are doing.”

Through GAIO’s efforts, registered waste pickers soon benefited in terms of:

1. Increased revenue: working with the municipal assembly or district office gave them better bargaining power, so they could negotiate a fair rate from recyclers;
2. Improved health and safety: they now had workstations at an MRF, and had access to medical care after being registered under the national health insurance; and
3. Recognition: being organized into cooperatives and having a working relationship with the government eliminated the stigma of illegitimacy.

“They are actually now in the process of forming a national alliance of waste pickers and waste collectors so wherever they are, they are able to speak for one another and stand up for one another and have one voice,” said Desmond.

**IMPACT #2: INNOVATION LEADS TO GREEN JOBS**

GAIO’s work on improving the waste management system also turned the MRF into an innovation hub. Waste diverted from the landfill are now resource materials that the waste pickers, unemployed youth, and women volunteers convert into marketable products. Coconut husks and sawdust are turned into charcoal briquettes which are a more sustainable alternative to conventionally produced charcoal. Plastic sachets, used water bottles, and old rubber tires are turned into raincoats, curtains, aprons, bags, and other “upcycled arts.” Biodegradable food wastes are processed into agricultural feeds or compost.

“Composting is economically viable. The first site produces about 2,000 kilograms of compost every month. Farmers have given good feedback about how this compost is better [than commercial-grade fertilizer],” said Desmond.

“We are trying to make sure that the government understands the employment potential of this Zero Waste sector,” Desmond emphasized. Their budding green industry has also sprouted a cassava farm (as cassava starch is one binding ingredient for the briquettes) and a mushroom farm independently run by waste workers who requested training from GAIO on urban gardening and mushroom farming. “Eight of them decided to set up a mushroom farm,” said Desmond, divulging that exploratory talks have been initiated by the district office for the women to produce mushroom juice for a private investor.

**THE NEXT FRONTIER: A UNIFIED APPROACH TO ZERO WASTE**

GAIO is confident that their Zero Waste strategy can be further developed as a waste problem-solver, and made fit-for-use anywhere. As proof of concept, a municipal director who spoke at the recently concluded Conference of Parties (COP27) vouched for the cost-effectiveness of the Ghana model, noting that successful waste reduction in his municipality resulted in minimized waste transport (for the contracted service provider), thus saving on hauling fees.

“The target is to transform holistically many African countries, especially to their way of thinking around waste, but we are also hoping to now influence more government decisions around waste and take it from that level as well. If we are able to get the proper backing of the government, we would completely eliminate much of the waste at-source, before it’s even generated. So it gives us the opportunity to have only waste that we can properly manage,” Desmond said.

GAIO is strengthening its relationship with government by taking either a supportive or an advisory role in the phasing out of problematic plastics under the Ghana National Plastic Action Partnership (NAPAP) program, the implementation of a national Extended Producer Responsibility (EPR) scheme, and ongoing standards-setting that would ensure that signed global conventions and agreements are rectified and codified into national law.

GAIO’s on-the-ground training on Zero Waste has also had a ripple effect, with its trainees becoming Zero Waste ambassadors who empower others in the community to practice Zero Waste. In that respect, Desmond said, the ZWA remains relevant as a teaching platform that would enable those already passionate about Zero Waste to gain the right knowledge before embarking on a campaign.

“It will be better that you get the right knowledge and the right understanding before you put your resources into something that is going to change the country or the world… This is like the basic beginning for you to understand what is a solution [and] what is not, and how to go about it,” he added.
BY JOHANNA POBLETE

Sometimes it takes a tragedy to spur collective action. When heavy rainfall in February 2005 collapsed the Leuwigajah dumpsite in Bandung, West Java, Indonesia—an avalanche that killed 143 people—it opened the eyes of residents to the massive waste problem in their midst. Waste reduction became the immediate priority of the Indonesian government, and so waste segregation, recycling and composting, and ultimately, sustainable living.

YPBB (Yaksa Pelestari Bumi Berkelanjutan, translated into English as “Guardian for Sustainable Earth”) stepped into the breach with a Zero Waste solution. YPBB is a non-profit environmental organization based in Bandung, Indonesia whose vision is to “achieve a high quality of human life through an organic lifestyle.” Established in 1993, YPBB initially conducted educational activities in schools and city parks to promote environmental conservation.

After the landfill collapse, with waste piling up in Bandung to the detriment of its inhabitants, YPBB focused on a Zero Waste campaign: teaching village communities practical tips on proper waste segregation, recycling and composting, and ultimately, sustainable living.

“We learned in 2005 that the easiest way to [connect] with the Bandung citizens about environmental issues is through waste,” said Fictor Ferdinand, Director of YPBB and a graduate of the Zero Waste Academy.

FORMING ALLIANCES

Unfortunately, a new pattern emerged where YPBB would train new community members who would later turn inactive, unable to sustain their Zero Waste practices, rued Fictor. Although Indonesia’s Waste Management Law of 2008 (No. 18/2008) emphasized the shared responsibility of all parties in waste elimination and other supportive regulations obliged citizens to minimize waste at source (reduce, reuse, and recycle), adherence to such laws was tepid at best, even with the Ministry of Public Works providing facilities for the temporary storage, processing, treatment, and disposal of waste. Moreover, the waste management system was controlled by the national government. “We realized that one of the key moments to spread Zero Waste as fast as possible is to work with the government. But how? That’s the question,” said Fictor.

Keen to add to their technical knowledge and expand their Zero Waste network, YPBB participated in the Break Free from Plastic (BUFF) movement meeting organized by GAIA held in Tagaytay, Philippines in 2016. Thereafter, YPBB became a member of GAIA and co-founder of the Aliansi Zero Waste Indonesia (AZWI). As a direct result of the alliances formed, YPBB became even more active in mainstreaming a Zero Waste lifestyle and campaigning against waste-to-energy incineration, among other problematic waste management activities, in Indonesia.

Fictor and other staff of YPBB also accepted the invitation from GAIA to the first Zero Waste Academy (ZWA) in Manila, Philippines. The intensive course provided them with MEF’s 10 Steps to Establishing a Community Zero Waste Program model, which they then saw applied in Zero Waste communities in the cities of Malabon, Manila, and Pampanga. Watching the interaction between the waste workers and the barangay officials inspired YPBB on the ways by which they could also reach out to their own government officials.

BECOMING A LEADER IN ZERO WASTE MODELING

Upon returning to Indonesia, YPBB modified the Philippine model into an eight-step process to better suit their context. In the adapted model, they removed the brand audit and analysis, transferring that responsibility to allied organizations, and deferred law enforcement for the Waste Management Law for the meantime, electing to wait until the Zero Waste model has been established. “After the model is built, the next part is we campaign on the regulation and tell the government: ‘This model will not last long, unless you have the regulation to sustain it,’” said Fictor.

Their first target for their Zero Waste campaign: the Bandung City Government. YPBB kick-started their Zero Waste modeling in two pilot kelurahan in Bandung. They also developed supportive tools along the way so the next iteration in other kelurahan will be easier to implement. “We promoted the [eight-step] model to the government, that Zero Waste can be done with these steps. And it’s quite fast, actually… We can build a model within a month. It really changed everything,” said Fictor.
One kelurahan in Bandung comprises 10 to 20 communities, with each community averaging 300 households. Waste segregated at home gets processed in distributed materials recovery facilities (MRFs) where: (1) waste collectors collect recyclables with resale value, (2) residual waste is taken to collection points for the city truck to transport to a treatment facility and/or landfill, and (3) organic waste gets composted and used in an urban gardening programme (e.g., growing vegetables in a community garden or ornamentals in city parks). Within a year, the city of Bandung was able to divert 950 kilograms of waste from their landfills daily.

**LEGAL BACKING FOR ZERO WASTE CITIES**

YPBB expanded their work to other areas of West Java in Cimahi and Soreang in Bandung Regency with varying degrees of success. At the height of the pandemic, they also collaborated with other AZWI members in Denpasar, Bali with partner PPLH-Bali (Pusat Pendidikan Lingkungan Hidup), and in Wringinanom Village in Gresik Regency with partner ECOTON (Ecological Observation and Wetlands Conservation).

By that point, YPBB was already helping the Bandung and Cimahi governments revise their waste management laws. “You will find it very different from the other cities’ waste management regulations in the regency, because it’s coming from our perspective, from our experience. We know what exactly to regulate to have the segregated waste management impacts in the field,” Fictor asserted.

Facing drawbacks in some areas such as slowed implementation at the outset and an erosion of compliance post-establishment prompted YPBB to step up their government advocacy work. “[The cities] have constraints that come from the national government. So we shifted our strategy in 2021, we built a model, still with the approach from the Zero Waste Academy, and after that, promoted it to both city and national government,” he said.

YPBB and its AZWI allies have the technical expertise to aid the national government in articulating impactful waste management laws. “If you look at the law in the Philippines case, it’s really detailed, and kind of like the lawmakers already know what they want to achieve. While in Indonesian case, it’s really vague. It still needs to be operationalized into more technical law,” explained Fictor. To further influence policymaking at the national level, AZWI is preparing to launch a national campaign in 2023.

Part of YPBB’s strategy is to form lasting relationships with government officials by having them participate in the ZWA. To date, YPBB has conducted two versions of the workshop: a ZWA based on the GAIA-MEF format, and a ZWA focused on policy-making in the Indonesian context. So far, YPBB has successfully trained two batches, with hybrid courses compressed into one week (around 12 to 15 hours in total), averaging 20–30 participants.

“We [orient] them first with the Zero Waste Academy. So then they are committed to work together with the NGOs, and to work with the community on the ground, to build the [Zero Waste] model,” said Fictor. “The head of the environmental agency can be changed every year. But people who join the Zero Waste Academy are going to last there for several years to come. [By orienting government officials to Zero Waste work through the Academy], we really have a partner in that city or municipality or regency.”

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From Theory to Practice

BY MARCO SUMAYAO

In the 2022 documentary Coca-Cola und das Plastikproblem, Merci Ferrer is seen standing atop the Candau-ay dumpsite in Dumaguete, the so-called “city of gentle people” and the capital of Negros Oriental. Plastic waste mounds tower above ground level, approximately the height of a three-story building covering 5.5 acres. The year prior, she and her team successfully lobbied to have the dumpsite shut down after years of skirting environmental law.

“Republic Act 9003, or the Ecological Solid Waste Management Act, stipulates that dumpsites need to be shut down. That was one of the requirements,” she explained in a combination of English and Tagalog. “[The dumpsite] had been violating the law since 2000.”

Merci was part of the first graduating batch of Zero Waste Academy (ZWA) held in 2017, having been invited to the project by peers at the Global Alliance for Incinerator Alternatives (GAIA). She had built a personal network of like-minded advocates as a lifelong activist herself, starting in her youth as a champion for indigenous peoples’ rights. In 2000, she joined Health Care Without Harm (HCWH), where she grew into her role as Director of the HCWH-Asia office over the course of 12 productive years. Along the way, she had built a strong relationship with GAIA and Mother Earth Foundation (MEF).

When she moved from Manila to Dumaguete in 2015, she decided to involve herself in the city’s environmental sector. She was soon invited to be part of the founding members of Break Free From Plastic (BFFP) in the Philippines in 2016. It was here that she got wind of a fund being raised for Zero Waste projects. She asked GAIA to help her secure the funding for Zero Waste initiatives in Dumaguete and set to work.

In 2017, she and her network of fellow Zero Waste advocates founded War on Waste - Break Free From Plastic - Negros Oriental (WoW-BFFP-NegOr), and held the city’s very first beach cleanup with a brand audit. The following year, the newly formed group co-implemented the second ZWA with the support of MEF and GAIA. At the time, WoW-BFFP-NegOr was implementing a Zero Waste Cities project in three coastal communities in the center of Dumaguete, namely Barangays Piapi, Bantayan, and Looc. These communities and the actual implementation of the Zero Waste Program served as an immersive activity for the participants of the Academy, most of whom were community-elected officials and waste workers who were to be eventually involved in the Zero Waste program implementation in these communities.

The three coastal communities demonstrated promising results. “We were able to show that you can reach a 50-60% diversion rate of waste,” she shared. “One of the communities we worked with achieved 50% diversion in the first four months! Today, some of them have reached 60-65%.”

Encouraged by their success, Merci and her team ventured into instituting Zero Waste at another community: Apo Island, a nearby marine sanctuary, a protected landscape and seascape in the municipality of Dauin. At the time, the COVID-19 pandemic had just hit the Philippines, and the team had made it onto the last boat to the island before lockdowns began. They spent the height of the pandemic conducting surveys, disseminating information about Zero Waste, and consulting with members of the community.

Prior to the Zero Waste project, Apo Island’s solid waste management system was severely lacking. The island had no landfill, and trash was instead dumped into areas not frequented by tourists. Any waste shipped to the mainland was unsegregated and brought by boat loads to dumpsites much like the one in Candau-ay.

Merci’s team started introducing initiatives that helped people reduce, segregate, and find uses for their waste, such as feed for pets and compost, establishing Materials Recovery Facilities and setting up a system of collection, further segregation and disposal of waste. In 2021, Apo Island was proclaimed the Philippines’ first Zero Waste Island barangay, where citizens are now actively finding solutions for solid waste-related issues.

According to Merci, her participation in the ZWA in 2017 was integral to all this success.

“GAIA invited me to be part of the Zero Waste Academy, and I said yes because I didn’t know the nitty-gritty of the systems,” she recalls. “What I knew was just the basics, so the Zero Waste Academy was a huge help. I feel the Academy pushed me further to engage or venture into Zero Waste work,” she said.
Merci shared that one of the key things she learned during the Academy was the importance of learning to work with the local government. “You really have to invite them, to collaborate with them, and to convince them that, ‘Hey people, this is your work. You have to sustain the work. We’re just here to help you, to guide you.’”

“You need to know what their knowledge base is; how conscious they are about local laws, resolutions, and ordinances; and how to create baseline data from there.”

“As a first graduate, meeting a lot of people that are knowledgeable — not only the mentors, but also the participants — it’s really a two-way theory-and-practice learning process at the Zero Waste Academy. It was valuable to me, and I’m really very thankful for it.”

Those lessons were essential to Merci’s group getting the local government to finally shut down the Candauay dumpsite. The site had been fined several times by the country’s Solid Waste Management Commission for violating environmental regulations, yet managed to stay operational for more than 20 years after laws were passed to require its closure. After Merci and her organization successfully lobbied to phase out the dumpsite, she and her husband, a fellow Zero Waste advocate, cooperated with the local government to develop a plan for its safe closure. They joined the city’s technical working group to study the site and determine the parameters for shutting it down with minimal harm to the environment.

This particular battle isn’t over, however. The local government has yet to act on the technical working group’s recommendations for clearing the area of hazardous leachates and methane. To add insult to injury, the administration recently purchased an incinerator to address the city’s solid waste issue.

Despite this development, Merci and her colleagues continue to fight for the environment. She is driven not just by her lifelong pursuit of social justice but also by her desire to leave behind a better world for generations to come.

“I will continue to work on Zero Waste and advocate for reforms needed not only to improve Dumaguete’s solid waste management system but also to address issues on waste workers rights and representation,” she said.

With the lessons she’s learned from the ZWA and a lifetime’s worth of advocating for environmental protection, there are few people we can trust more than Merci to keep pushing forward.
CLE BERN PAGLINAWAN

The Ripple Effect of One Man’s Advocacy

BY JOHANNA POBLETE

Siquijor’s war on waste started in a humble barangay and has evolved into a province-wide effort. While it is still being relentlessly fought on the ground, there have been increasingly visible results—not the least being the reduction of plastic waste. In acknowledgment of these efforts, the provincial government began recognizing model barangays for their Zero Waste practices through an annual search for the “Best Zero Waste Barangay,” taking care to award three categories of barangays: upland, urban and coastal.

The commitment to Zero Waste is evident in the harmonious relationship between government and non-government stakeholders, who jointly award the “cleanest and most orderly barangay,” “adherence to the no single-plastic use ordinance,” “well-managed and functional materials recovery facility,” “efficient waste collection system,” or “best in environmental legislation,” to name a few of the minor awards that are also given out annually.

These model barangays strive for a common goal: to make Siquijor a “Zero Waste Island.” The man responsible for realizing this vision through concerted effort is Cle Bern Paglinawan, Tourism and Environment Officer at the Provincial Local Government Unit (PLGU)-Siquijor, and an alumni of the Zero Waste Academy held (ZWA) in 2018.

A MAN WITH A PLAN

Cle Bern worked in Japan in the 1990s and wanted to replicate their solid waste management practices back home, starting with his own barangay in Larena. Siquijor. “I saw how advanced they were. Why can’t it be done at home—why is it dirty where we live, but clean where they are?” he posited. Cle Bern figured that Siquijor needed a champion who would speak for the environment and decided to be that voice.

Having returned to the Philippines on a mission, he was thrilled at the passage of Republic Act 9003 (RA 9003), or the Ecological Solid Waste Management Act, in January 2001. Its implementation became his chief advocacy as Barangay Captain (village chief) of Sabang, Larena from 2002 until 2007. He began his leadership by rehabilitating a river that had become a garbage dump and eventually transformed what was once considered “the dirtiest barangay” in Siquijor into a consistent winner of the “clean and green barangay” accolade. However, Cle Bern felt that the efforts of a lone barangay would not be enough; what he needed was the buy-in of other barangays in Siquijor.

JOURNEY TO ZERO WASTE

Cle Bern became Municipal Councilor in 2013, was re-elected in 2016, during which, he got elected as the president of the Councilors League of the province, which automatically made him ex-officio board member until 2019. All this time, he never lost sight of his environmental advocacy. While sitting as an ex-officio board member, he drafted an ordinance that would help get rid of Siquijor’s most evident waste problem: plastics. He took inspiration from a pending bill to regulate single-use plastics by Senator Loren Legarda, also the principal author and sponsor of RA 9003.

At first, Cle Bern hesitated to file his ordinance, fearing that it would anger people. Not willing to let it go, however, he finally got the “Plastic Use Regulation Ordinance for a Plastic-Free Siquijor” approved by the Provincial Board on October 30, 2018, a great achievement considering that, at the national level, Senator Legarda was met with opposition. In 2022, she refiled her earlier bill to phase out single-use plastics and mandate extended producers’ responsibility or EPR schemes to combat plastic pollution.

Cle Bern’s landmark ordinance led to the Zero Plastic Waste Siquijor program, a partnership with Mother Earth Foundation (MEF), and an annual contest offering cash incentives to model barangays which helped sustain the barangays’ waste management initiatives. He also found a supporter in retired police officer Enrique Belsilia, who formed the Solid Waste Management Task Force to ensure implementation of the province-wide ordinance. Despite initial resistance from some municipal and barangay leaders, as well as market vendors grumbling over replacing single-use plastic bags, Cle Bern estimates that Siquijor is currently at 70% compliance—no mean feat.

INTRODUCTION TO THE ZERO WASTE MOVEMENT

Cle Bern said he got the courage to push for his ordinance by joining the ZWA. The 10-day intensive course was intended to be exclusive to Dumaguete City residents, but Cle Bern, a resident of the neighboring island of Siquijor, convinced the organizers to take him on. Previously, he had also attended the Academy’s inaugural benchmarking visits to communities practicing Zero Waste in Metro Manila. What he learned from the experience went into the final draft of his ordinance, he said, admitting that he finally realized he had allies—organizations like MEF and GAIA—who are willing to help.

He especially appreciated learning about the process of establishing a materials recovery facility (MRF) managed by the barangay. To date, all barangays in the provincial capital have an MRF, although the province itself has yet to reach 100% compliance.
In all its 134 barangays. Siquijor also hosted its own ZWA from June to August 2022, and has an additional five graduates who will continue working with the barangay captains, councilors, and mayors.

A MAGNET FOR SUSTAINABLE TOURISM

In the absence of an EPR law, Cle Bern is now considering drafting an ordinance to either ban small plastic bottles from the province (as they tend to be easy throwaways) or mandate an EPR scheme for manufacturers to buy back their waste. “You can sell here, but you must also take back your garbage,” he declared, fairly confident that he will get this new ordinance passed.

With Siquijor’s limestone-rich and cave-filled topography, the province also lacks a landfill. Their current waste reduction and recycling efforts help ensure that the province is not overburdened by waste, but they are also negotiating for the use of a landfill — if not within the province itself, then in neighboring Bayawan, Negros Oriental. A Zero Waste Siquijor, he said, also translates to cost savings in terms of off-island hauling and transport. He is looking to the future by drafting a 10-year solid waste management plan that would account for these challenges.

As the Provincial Tourism and Environment Officer, Cle Bern is in a unique position to ensure that Siquijor’s tourism and environment objectives align, which is crucial to preserving the province’s status as a sustainable tourism destination. “We should protect our environment because that’s the capital of tourism,” he said, proudly asserting you’d have difficulty finding a stray piece of plastic anywhere on-island these days.

He intends to do his utmost to maintain the viability of Siquijor as a Zero Waste Island, attractive to tourists and eco-champions alike, by finding just the right balance between being tourism and environment champion. “Those two positions are in conflict. Tourism will be promoting garbage [generation], won’t it? Tourists bring waste along with them. But as an Environment Officer, I am an advocate of the environment, so I am also working hard for the environment.”

In the future, Siquijor could also attract people who want to learn about Zero Waste. “Visitors will come for two things: the beauty of the island and our Zero Waste practices that they want to benchmark. It will be an added value for Siquijor as a tourist destination,” he said. Cle Bern expanded his vision from a clean and green barangay, to a clean, green, and Zero Waste island province. What started in one barangay has spread to all 134 barangays; and if the island province of Siquijor can achieve this, perhaps there’s hope for the rest of the countries’ more than 7,000 islands? Best to check in with the man with a plan by 2030, maybe even revisit Siquijor in a few more years.
Empowering Communities to Practice Zero Waste

BY JOHANNA POBLETE

Post Pendidikan Lingkungan Hidup (PPLH Bali), translated in English as “Environmental Education Center,” was established 25 years ago to provide environmental education, conduct research and provide assistance in waste management to an empowered Indonesian community. Given the lack of supportive government regulations at the time, it seemed like an uphill battle. Lately, however, there has been growing interest — spurred by Indonesia’s membership in the Global Plastic Action Partnership (GPAP) and hosting of the 2022 G20 Bali Summit — for the province to clean up its act.

Leveraging on reinforced waste management regulations — with Indonesia promising to reduce marine plastic by 70% and solid waste by 30% by 2025 — and increased public awareness on waste issues, PPLH Bali has doubled-down on its efforts. The organization entered into a collaborative partnership with another non-profit, Yaksa Pelestari Bumi Berkelanjutan (YPBB), under the Aliansi Zero Waste Indonesia (AZWI), and participated in the Zero Waste Academy (ZWA) organized by Mother Earth Foundation (MEF) and GAIA, which gave an extra boost to their Zero Waste Cities (ZWC) campaign.

Upon YPBB’s recommendation, Catur Yudha Hariani, director of PPLH Bali, joined the ZWA to gain new knowledge and skills that would help improve the quality of programs mounted by PPLH Bali. It is largely due to highly motivated, knowledge-seeking individuals like her that the organization remains an effective champion of the environment. “I knew [about] Zero Waste Academy from YPBB. I got into the academy and [it] exceeded expectations,” she said.

Catur, a veteran environmental activist, indicated that ZWA helped her learn waste management policies and techniques being practiced in the Philippines, including ways on how to better educate communities on implementing Zero Waste. “I wanted to imitate what is suitable to be applied in Bali,” said Catur. “PPLH Bali has been developing a waste management program in the community since 1997. I don’t have any guidelines or manuals for working steps that are structured in my work. After I attended the academy, I got structured guidelines.”

USING THE LAW, PROVEN METHODS

PPLH Bali operates in the province of Bali, which has struggled to curb its waste generation given that it is home to more than four million residents and remains one of the most visited tourist destinations in the world. Plastic pollution, in particular, has been a major challenge. As such, the government is in the process of enforcing a single-use plastics ban, following a court victory upholding Bali Governor’s Regulation (Pergub) No. 97 of 2018 regulating single-use plastic (i.e., plastic bags, straws, and styrofoam), while adopting stricter guidelines on waste management and possibly imposing a plastics tax. Other existing environmental laws aiding Zero Waste proponents include: Law No. 18 of 2008 on waste management, Bali Provincial Regulation No. 5 of 2011 on waste management, and the Bali Governor’s Regulation (Pergub) No. 47 of 2019 concerning source-based waste management.

Before these laws were enacted, there was hardly any effort from Bali residents to manage household waste. While they acknowledged the waste problem, residents were unwilling to pay for garbage collection and transport. No one practiced waste segregation, so inorganic trash that could be sold for recycling was mixed with organic waste. They would also leave trash bags out in the open, beside bodies of water or by the side of the road, where stray animals could paw at them and scatter its contents. “The regulation existed before I studied at ZWA, but it was not implemented effectively and there was no law enforcement,” Catur admitted.
A Bali resident for more than 20 years, Catur started her community outreach by approaching women, mostly mothers, to painstakingly teach them the three-bins system of sorting and using organic waste for composting. She also reached out to the youth, through environmental education in school campuses and the neighborhood “Sunday school” and collaborated with teachers to develop a module on caring for the environment. Following her stint at ZWA, the work she was already doing was strengthened through learning about the shared experience of fellow activists and a more systematic approach to community education.

Together with YPBB, PPLH Bali has now adapted Mother Earth Foundation’s 10 Steps to Establishing a Community Zero Waste Program into eight steps more tailor-fit for the Indonesian context, a Community Zero Waste Program into eight steps more tailor-fit for the Indonesian context. “Since PPLH Bali introduced ZWC in 2021, village heads have started preparing a waste management budget. In 2022, the village head started subsidizing the honorarium of cadres at the waste bank, and in 2023 will buy transportation in the form of motorbike carts,” said Catur.

PPLH Bali has also been busy educating 336 families in Desa Tenganan, Kabupaten Karangasem on waste segregation and sorting at home, and independently transporting recyclables to the waste bank and residuals to a materials recovery facility (MRF). The community and village government previously had not considered waste to be an urgent problem so they had not budgeted for its collection and transportation, but the residents are now being more proactive. “For years, the waste has been dumped in gardens, beside rivers, and burned… [Now] people voluntarily bring their own garbage to the MRF. Inorganic waste that has value they sell to waste banks or to scavengers, while inorganic waste that has no value is collected at the MRF and sent to landfill every week,” said Catur.

Lastly, Catur shared that PPLH Bali has initiated socialization in Desa Celuk, Kabupaten Gianyar and Desa Toga, Kabupaten Bangli (a potential 981 families). Once the waste management system is set up, door-to-door monitoring will be conducted every three months, six months, and annually. Additionally, focus group discussions with stakeholders are also used for better monitoring results. Since the community is now free to gather and travel, the work to create Zero Waste Cities has become more manageable, said Catur, particularly with outreach and door-to-door education being unrestricted.

“The lesson learned during the pandemic is that when you can’t meet face-to-face, socialization can be communicated online via WhatsApp, Zoom, and [other means] can continue to be used as a monitoring and information sharing tool,” she said. “The lesson after the pandemic is that the amount of inorganic (plastic) waste is getting higher because people shop a lot online; this is a challenge for how people change their behavior to reduce single-use plastic.”

ZWA NOW A BEST PRACTICE IN INDONESIA

In hindsight, ZWA’s lessons have been a major contributor to PPLH Bali’s recent successes. “I highly support and recommend ZWA to others. Because ZWA is very useful for solving waste problems starting from the source of the waste. The method is easy to apply and modify according to regional conditions. I hope that more and more participants can take part in ZWA,” Catur said.

She supported the ZWA (Batch 5) co-organized by GAIA and YPBB which was held in 2019 with participants from Bandung and Cimahi. PPLH Bali also set up its own ZWA in December 2022, attracting 47 participants from 28 environmental groups across Indonesia, with a majority hailing from the eastern part of the country. Catur said that the latter ZWA stoked interest in the Zero Waste Cities program, with some participants proposing a collaboration with PPLH Bali to implement ZWC in their areas of operation, namely Lembata, Alor Island, West Sumba, and East Sumba Regency.

By no means is Bali’s war against waste over. However, Catur feels she now has more tools in her arsenal, and more allies to call into arms. “[ZWA] really impacted my work because I can practice the results of learning. I have received support from GAIA, which has accelerated my work and currently, I have assisted in five regions. PPLH Bali is [finding it] very easy to convince the government and the public that ZWC is the right method,” she said.

For Catur, ZWA has strengthened the network of alliances, connecting the Zero Waste efforts in the island province of Bali with the rest of the world. “GAIA really maintains relationships with alumni; communication and information sharing are also given networking opportunities, so that my institution can continue to develop more Zero Waste Cities,” she added.
Helping Schools Become Zero Waste

By Marlet Salazar

Postcard-perfect rice fields lush with greenery, beautiful beaches, historical tourist sites, and amazing food make Vietnam one of the top destinations for travelers eager to discover this part of Southeast Asia. Located at the border of China to the north and Cambodia and Laos to the west, this bike nation spans a land area of 311,699 square kilometers (120,348 square miles). It is the 15th most populous country in the world with a population of 96 million as of July 2022. With its large population and tourist arrival of 3,440,019 (2022), waste management can be overwhelming for the country.

In 2019, the country produced 60,000 tonnes of waste daily, or roughly 25 million tonnes of domestic solid waste annually, of which 50%-70% is organic waste and 10-20% is plastic. Most of the waste (55%) comes from urban areas. The country disposes of 71% of its waste in the 1,000 landfills scattered all over the country, according to data from Vietnam Environment Administration. Of this number, only 20% is brought to sanitary landfills. About 13% of waste is sent to incinerators. Open burning, especially plastics, is common in the country.

This lack of a proper waste management system has put Vietnam struggling with waste. The problem has been exacerbated by the COVID-19 pandemic when mobility restrictions were enforced to curb the spread of the virus.

Unfortunately, the once war-torn country does not have the right infrastructure to implement a waste sorting system. As such, waste disposal remains a problem that needs to be addressed — and soon.

Vietnam has several waste management laws, with some yet to be implemented. The laws include:
- Law on Environmental Protection 2020 (LEP)
- Decree 08/2022; under the LEP
- Circular 02/2022 under the Decree 08/2022
- Decree 45/2022 fine if fail to sort waste (active)

The country’s Law on Environmental Protection 2020 (LEP) covers most of the issues that contribute to the waste problem — single-use plastic, lack of waste sorting — and hopes to address these with interventions like volume-based fees and placing the responsibility of waste disposal on the producer. The law also requires at-source waste sorting and a circular economy. The laws, when implemented properly, are hoped to address these issues and finally reduce the amount of waste in the country.

According to Quách Thị Xuân of the Vietnam Zero Waste Alliance, the laws prohibit the manufacture and import of non-biodegradable plastic bags with dimensions smaller than 50 cm x 50 cm and a film thickness of less than 50 µm, except for the case of production for export or manufacture or import for packaging products and goods for sale on the market. This law takes effect on January 1, 2026. Also included in the laws is that manufacturers or organizations that import single-use plastic products and non-biodegradable plastic packages must carry out the responsibility for recycling and handling.

Through the laws, Vietnam is looking at gradually reducing the production and importation of single-use plastic products, non-biodegradable plastic packaging, and products and goods containing microplastics. After December 31, 2030, the country will stop the production and importation of single-use plastic products (except for products certified with Vietnam’s eco-label), non-biodegradable plastic packaging (including non-biodegradable plastic bags, styrofoam packaging...
In 2019, Green Hub, a non-profit organization that conducts community development and capacity building on waste management, introduced a Zero Waste school model where they constructed a materials recovery facility (MRF) in Phú Yên, a coastal province in Vietnam.

The MRF serves as a temporary station for segregated dry waste. It also has a composting area where the biodegradable waste is managed. For an MRF to function properly, households and other waste generators like schools and business establishments must sort their waste at source. Han Nguyen Bao, who participated in the ZWA in the Philippines in 2018, said the idea of MRFs and composting had the most impact on her.

"[Constructing MRF] is one of the things we learned in the Zero Waste Academy [ZWA]," said Han, who was a program officer at Green Hub and who now serves as Zero Waste program coordinator in Phú Yên. "The models shared in the course are applied flexibly and effectively in my project area with diverse beneficiaries."

Through the community emersion activities, Zero Waste site visits, lectures, hands-on exercises, and skill-shares, participants are equipped with knowledge and tools they could use in implementing Zero Waste strategies in their countries or places of advocacies.

Phú Yên has become the local pioneer in Vietnam to adopt Zero Waste as a strategy for local waste management. In 2021, the People’s Committee of Phú Yên included in their action plan that by 2025, 100% of schools in the province will be adopting the Zero Waste approach. At present, co-implementers of the plan include the Department of Natural Resources and Environment, the Department of Education and Training, Greenhub, and WWF Vietnam.

"I think, since 2021, there is at least one school adopting the Zero Waste approach in Phú Yên while there are now five Zero Waste schools in its capital, Tuy Hòa City," Hân said.

School leaders and local authorities recognized Green Hub for its efforts in creating Zero Waste schools.

The organization is now expanding its waste reduction and environmental education programs to markets and households in Phú Yên in partnership with partners and local government officials.

Greenhub is part of the Vietnam Zero Waste Alliance, which is composed of like-minded NGOs hoping to inspire Zero Waste practices in communities and the whole country.

"ZWA graduates came to fully understand the Zero Waste concept and how to view the Zero Waste model," said Xuân. “They applied the lessons they learned from the academy and that includes capacity building as well as working harmoniously with other stakeholders.”

She added that government officials who participated in the Vietnam ZWA expressed that they now have a better understanding of the Zero Waste concept and that they intend to adopt the interventions they learned that suit the Vietnam context.

As for herself, Xuân shared that the ZWA made her realize the importance and potential of the Zero Waste model in waste and resource management. Fully convinced that it would work in Vietnam, she persuaded all of the partners of Pacific Environment (PE) where she is now connected, to implement the Zero Waste approach in their waste management programs, with financial support from PE.

As a result, these partners also built MRFs in their respective communities. Center for Marine Life Conservation and Community Development (MCD) built one in Giao Hai Commune, Giao Thuy District, Nam Dinh Province and Cham Marine Protected Area (Cham MPA) also built one in Tan Hiep Commune, Hoian City, Quang Nam Province.

Moreover, the Zero Waste model has been replicated in other communes in Hoi An City. By the end of 2022, there were already seven MRFs in Hoi An City. These MRFs have been working well with the full engagement of the surrounding households, collecting units, local government, and even some private companies.

Presently, PE is supporting Hoi An to evaluate the current operation of existing MRFs, propose an effective operation mechanism, and map spaces in Hoi An where MRFs can be potentially created. Hoi An is gearing to be the first city in Vietnam to join GAIA’s Zero Waste City Alliance, which is composed of like-minded NGOs hoping to inspire Zero Waste practices in communities and the whole country.
Leading the Way to Zero Waste

BY SALVE CANALE

Participants of the Zero Waste Academy (ZWA) come from different countries, professional backgrounds and levels of understanding of Zero Waste when they join the program. Yobel Novian Putra was working as the Organics Policy Officer at the Indonesia-based environmental organization, Yaksa Pelestari Bumi Berkelanjutan (YPBB) Bandung when he participated in the ZWA. Cheryl Rosales, meanwhile, was new to the Zero Waste movement, having just joined the newly formed War on Waste - Break Free From Plastic (WoW-BFFP-NegOr) in the Philippines in 2018. Malaysians Theeban Gunasekaran and Suseela Nagappan, both Education Officers at Consumers Association of Penang (CAP), were already experts in organics management and other aspects of Zero Waste and sustainable living, having been with their organization for more than a decade. Likewise, Marito Barillo and Natasha were already familiar with Zero Waste when they took part in the ZWA. Marito was working as Environmental Management Specialist-II at the City Government of Tacloban in the Philippines. Whereas Natasha Zarine was co-founder of India-based CARPE, and currently works as the organization’s managing director. Even Tini Martini Tapran, co-founder of her foundation, Generasi Semangat Selaku Ikhlas, was already implementing waste management programs in her community when she joined the academy.

Today, Yobel works at GAIA Asia Pacific as a Campaigner for Climate and Clean Energy. Marito, meanwhile, still holds the same position in the City Government of Tacloban, but he also works in community forestry which allows him to integrate Zero Waste with permaculture. Cheryl, meanwhile, has moved to Kahupongan Para Sa Kinobuh Uy Kinaiyahan, Inc. Before leaving WoW-BFFP-NegOr, she helped implement Zero Waste programs in three Barangays in Dumaguete City (Bantayan, Piapo, Looc) and Apo Island in Dauin. Finally, Theeban has continued giving training on various aspects of Zero Waste with CAP, while Suseela left CAP for a few years, but is now back as a freelancer.

While some of these participants have moved on from the organizations they were a part of when they joined the ZWA, they continued practicing and advocating for Zero Waste. Today, we asked them to look back at their respective times in the Academy and to share with us their experiences and how their participation in the program helped them with their work.

Why were you interested in being part of the ZWA?

CHELLE: I believe that going Zero Waste is a sustainable and achievable way to manage our waste, conserve resources, and help in the fight against global warming. At that time, my knowledge about Zero Waste was sketchy, so I joined the academy to learn.

TINI: I wanted to learn the best way to solve the waste problem in a sustainable way.

YOBEL: I wanted to see the best practices of Zero Waste implementation in the Philippines and learn from participants from other countries. I was also curious how different governance systems affect law enforcement in the waste management sector.

MARITO: Back in 2016-2018, it was part of my task under the Office of the City Environment and Natural Resources to support the Information and Education Campaign on waste management programs of the City of Tacloban. I believe that knowing the best practices from different cities, municipalities, and countries will guide us to implement our programs better. It was a timely opportunity that the city government of Tacloban allowed me to participate in the ZWA program provided by the GAIA and Mother Earth Foundation.
SUSEELA

Participating in the ZWA gave me an opportunity to learn more about the 5Rs: refuse, reduce, reuse, repurpose, and recycle. Although the 5Rs concept is generally known by many, I had a deeper understanding of its significance after attending the program. Having a deeper understanding of the concept made me realize that refusing problematic products is one of the best ways to reduce waste.

MARITO

It was my utmost dream to innovate solutions or mechanisms to help manage the solid waste generation, collection and disposal. It was then my priority to know more about different techniques of bio-waste conversion into a usable product as soil enhancer. I really appreciated the support of the organizers who in one way provided us the avenue to interact and learned a lot of best practices that were doable enough in our respective area of assignment. I was able to link the Zero Waste concepts to our advocacy on permaculture.

YOBEL

Yes, it had. I would say the biggest impact came from understanding the scope of Zero Waste work and the size of international and regional alliances who are working on it. It gave me more reason to keep working together with many like-minded people. Although we can’t meet in-person most of the time, the spirit that was shared in ZWA remains as a fuel for me working on this issue long term.

THEEBAN

The ZWA gave me a better understanding of the importance of waste separation. My colleagues and I intensified our efforts towards promoting healthy eating habits and waste separation. We teach waste separation and composting in schools.

TINI

Very impactful. I understood how to involve the local government, waste collectors and the community in making and agreeing on a system for sustainable waste management.

CHE

Being a graduate of the academy bolstered my confidence in talking about the topic as well as in demonstrating the strategies to achieve Zero Waste in households, offices, and the barangay.

YDBEL

Yes, it was. I wanted formal training in the subject. I also wanted to clarify my concepts, strategies, and services, whether they could be improved, and so on.

What skills or knowledge were you hoping to gain by participating in the ZWA? Were these fulfilled?

CHE

I was expecting to learn how to apply Mother Earth Foundation’s 10-steps in rolling out a community Zero Waste program and along the way also gain friends and allies. Both of these were achieved. I was also able to visit wonderful places and meet amazing fellow advocates.

NATASHA

I had a good idea about Zero Waste through practice, but in theory, I was guided more by legislation and case-studies.

Would you say your participation in the academy had an impact on your Zero Waste work? In what way?

NATASHA

Yes, it was a confidence booster, a network enabler, and a support system. I also learned how to do waste audits.
Looking back at your participation in the ZWA, which part of the academy (activity, skills or knowledge sharing, study tour, networking, etc.) would you consider was most impactful to you, and why?

TINI It is the activities in the field because I learned directly how to do the steps. I learn best by doing.

CHE It was the study tour because I was presented with concrete proofs that indeed Zero Waste is possible.

SUSEELA The ZWA study tour was eye-opening in that it made me realize how much people are accustomed to waste culture despite being economically deprived. Rummaging through the waste enabled us to understand the amount of waste that could be avoided at all costs. It also pointed out the amount of money wasted as a result of impulse buying and the need to educate consumers to only buy things that are crucial for their survival.

THEEBAN I appreciated the hands-on activities. I also liked the knowledge sharing because it provided us an opportunity to showcase our work and share our expertise to the group.

Which of your programs and activities post-academy would you say were inspired by or were a result of what you learned from the Academy?

CHE Helping establish the five zero waste model barangays in Dumaguete is top of the list because the work was really the application of the 10 steps. Next is the establishment of “tanaman ni maya” which is a Zero Waste garden wherein we demonstrate to interested individuals and organizations the different ways to manage compostables and a few reusables. Currently, the garden is accepting the compostables of three business establishments in our city.

SUSEELA House-to-house visits to analyze the waste produced by residents in certain localities gave us a holistic understanding of what the waste problem is all about. All that garbage was evidence of not only a wasteful lifestyle but also a burden for the earth in the form of waste. For example, during the analysis of the waste, we noticed almost all the garbage bins at each household had food waste, i.e., waste that could have been avoided. Also, we noticed kitchen waste in the garbage, which means people need to be taught about composting. Overall, it gave an idea of what people are lacking and what aspects should be prioritized when conducting Zero Waste activities.

TINI How to create the systems in the region, educating the community through door-to-door education campaigns, how to design an MRF, how to gather baseline data, and so on.

YOBEL I became more thrilled in working on Zero Waste policy work. Through the ZWA, I understood better the importance of having policy as an enabler for mainstreaming Zero Waste.

Would you recommend the ZWA to other Zero Waste Advocates? Why?

CHE Definitely, because it will deepen their understanding of the issues surrounding Zero Waste.

SUSEELA I would surely recommend the ZWA to anyone who is into advocating a Zero Waste lifestyle because the approach applied is outstanding and practical. The ZWA compels one to see the root cause of the problem and, which will guide them in formulating action plans and conducting activities. This method will surely bring results in the long term.

TINI Of course. It is very useful in creating a sustainable waste management system.

THEEBAN Definitely. The academy is very impactful. The awareness on various issues bloomed in each person who attended the academy – the fight for a future without wastage, the focus on the government’s role in waste management, and so on.
There are a lot of inspiring stories in every iteration of the Zero Waste Academy. But one thing I remember so well is this local government official during the Dumaguete leg who became so keen to complete the Zero Waste Academy. His original plan was just to be an observer for the cohort he was a part of because he lived on another island; daily travel to the venue was challenging. But upon realizing the value of the Zero Waste Academy, he decided to invest his time and resources just to complete the course even if it meant daily boat travel for almost two weeks. Now, the island province of Siquijor is on its way to becoming the country’s first Zero Waste island province, thanks to Engr. Cle Bern Paglinawan who decided to complete the course as a regular participant.

RAP VILLA VICENCIO
Mother Earth Foundation
Co-Implementer, all iterations of ZWA

The Zero Waste Academy helps change the mindsets of participants and form Zero Waste champions, who in turn, contribute to implement and inspire the Zero Waste work.

XUAN QUACH
Vietnam Zero Waste Alliance
Co-Implementer, ZWA Vietnam 2019

We held ZWA, both virtual and in person. Since the pandemic broke out in 2020, we have been conducting the academy virtually and it was challenging. People were still adjusting to the online system. We learned a lot in developing a digital course to accommodate the participants so they will benefit from the course. The virtual system also benefited us. We are able to educate more participants and collaborate with more institutions; not only in Bandung, but also the other cities in Indonesia. It was an extraordinary and valuable experience for us. For YPBB, education is one of the gateways for understanding the wider community about environmental and sustainability issues. It helps YPBB achieve its mission and vision, which is to achieve a high quality of life through an organic lifestyle.

ALIDA NAUFALIA ARIBAH
YPBB Zero Waste
Co-Implementer, 2020 ZWA Indonesia

Aside from the more obvious benefits that participants get from attending a Zero Waste Academy (i.e., technical knowledge and skills), the opportunity to network and to build alliances and relationships with other individuals/groups who are involved in the same advocacy seems to me to be just as important a contribution of the ZWA. Based on personal anecdotes, the connections that people form (as fellow advocates) provide long-lasting benefits to their Zero Waste work (and beyond). Another maybe understated contribution is the sense of solidarity that one feels, particularly when in a diverse group such as an international ZWA cohort. Having the knowledge that individuals across the globe are fighting a similar battle and facing the same challenges makes one feel less alone in their Zero Waste work, especially if one does not necessarily have as many fellow advocates in their own countries/cities. This also makes celebrating wins more gratifying because one realizes that it is not purely through their own individual efforts that they were able to achieve something good for their advocacy, but because they acknowledge that their win is a product of an entire community's work. The wins are shared, and therefore more meaningful.

FELICIA DAYRIT
GAIA Asia Pacific
Co-Implementer, ZWA Quezon City and Vietnam

Designed the first online ZWA

Time and time again, the Zero Waste Academy has been at the forefront of developing future Zero Waste champions. From Asia to Africa, we have seen grassroots workers, government officials, business owners, and even journalists empowered by the expertise, experience, and insights gained from the Academy. Moreover, the ZWA served as a springboard in amplifying Zero Waste work in many areas of the world. From the first cohort of ZWA, we have seen how both participants and alumni are integrated to the diverse Zero Waste Network and have led Zero Waste work in implementing their own Zero Waste models — ultimately proving that Zero Waste is possible.

JANSSEN CALVELO
GAIA Asia Pacific

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FELICIA DAYRIT
GAIA Asia Pacific
Co-Implementer, ZWA Quezon City and Vietnam

Designed the first online ZWA
# List of Zero Waste Academy Graduates¹

## BATCH 1
May-June 2017
Metro Manila, Philippines

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Country</th>
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<tbody>
<tr>
<td>1 Fictor Ferdinand</td>
<td>YPBB</td>
<td>Indonesia</td>
</tr>
<tr>
<td>2 Jessica Fam</td>
<td>YPBB</td>
<td>Indonesia</td>
</tr>
<tr>
<td>3 Tini Mf Martini</td>
<td>Yayasan GSSI</td>
<td>Indonesia</td>
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<tr>
<td>4 Pipin Rohana</td>
<td>PD Kebersihan Kota Bandung</td>
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<tr>
<td>5 Darwin Annadurai</td>
<td>Consumers Action Group</td>
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<td>6 Theeban Gunasekaran</td>
<td>Consumers Association of Penang</td>
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<tr>
<td>7 Susseila Nagappan</td>
<td>Consumers Association of Penang</td>
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<tr>
<td>8 Marito Barillo</td>
<td>CENRO, Tacloban City</td>
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</tr>
<tr>
<td>9 Cresencia Abuda</td>
<td>Guian Development Foundation</td>
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<tr>
<td>10 Consesa Abuda</td>
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<td>11 Ochle Tolentino</td>
<td>Ecowaste Coalition</td>
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<td>12 Sherma Benosa</td>
<td>GAIA Asia Pacific</td>
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<td>13 Veronica Michelle Moreno</td>
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<td>14 Fidel Alborina</td>
<td>Mother Earth Foundation</td>
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<tr>
<td>15 Elizabeth Biagcon</td>
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¹Not in the list: Batch 4 (Indonesia ZWA) and Batch 5 (Vietnam ZWA)

## BATCH 2
July 2018
Metro Manila, Philippines

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<th>Name</th>
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<tr>
<td>1 Angelita Ragay</td>
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<td>2 Ritchinda Maribao</td>
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<tr>
<td>3 Aloha Santos</td>
<td>Barangay Looc</td>
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<tr>
<td>4 Mr Chalemagne D. Bantilan</td>
<td>Barangay Piapi</td>
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<tr>
<td>5 Eric Lasola</td>
<td>Barangay Piapi</td>
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<td>6 Lolita Ontolalan</td>
<td>Barangay Piapi</td>
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<tr>
<td>7 Nerio V. Grapa</td>
<td>Barangay Bantayan</td>
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<tr>
<td>8 Allan General</td>
<td>Barangay Bantayan</td>
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<td>9 Alan Cimafranca</td>
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<tr>
<td>10 Chilvier Patrimonio</td>
<td>CENRO</td>
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<tr>
<td>11 Frannie Pabayos</td>
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<tr>
<td>12 Leonides Caro</td>
<td>City Planning</td>
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<tr>
<td>13 Hon Manuel R. Arbon</td>
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<tr>
<td>14 Cheryl C. Rosales</td>
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<td>15 Maria Mercedes Ferrer</td>
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<td>16 Cle Bern Paglinawan</td>
<td>Siquijor</td>
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<td>17 Jeffrey Pecot</td>
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<td>18 Son Ngoc Nguyen</td>
<td>Vietnam</td>
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### ONLINE COHORT
For Philippine Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Province</th>
</tr>
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<tbody>
<tr>
<td>Vince Jethro Alba</td>
<td>City Environment and Natural Resources Office</td>
<td>San Juan City</td>
</tr>
<tr>
<td>Lhermie Areja</td>
<td>Municipal Environment and Natural Resources Office</td>
<td>Siquir</td>
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<tr>
<td>Albert Bais</td>
<td>Municipal Environment and Natural Resources Office</td>
<td>Magdalang, Pampanga</td>
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<tr>
<td>Mark Lloyd Mesina</td>
<td>City Environment and Natural Resources Office</td>
<td>Malabon</td>
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<tr>
<td>Estrella Pasion</td>
<td>Provincial Local Government of Quirino</td>
<td>Quirino</td>
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<tr>
<td>Evelyn Joy Sarmento</td>
<td>Waste Management Department</td>
<td>Taitay, Rizal</td>
</tr>
<tr>
<td>Hameded Barbin</td>
<td>Solid Waste Management Department Department of Barangay Potrero</td>
<td>Malabon City</td>
</tr>
<tr>
<td>Maria Victoria Bautista</td>
<td>Maria Victoria Bautista, Zero Waste Bagui, Inc.</td>
<td>Benguet</td>
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<tr>
<td>Jedidiah Magoncia</td>
<td>Waste 360</td>
<td>Leyte</td>
</tr>
<tr>
<td>Leodegario Rosales</td>
<td>BFI Bayan Dumaguete/Kahugongonan Paru sa Kinabuhi ug Kinaiyahan Inc.</td>
<td>Negros Oriental</td>
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<tr>
<td>Peter Damary</td>
<td>LimadUL</td>
<td>Davao del Sur</td>
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<tr>
<td>Daniel Alexandre</td>
<td>Ecowaste Coalition</td>
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<tr>
<td>Jammy Ungab</td>
<td>Plastic Free Bohol</td>
<td>Bohol</td>
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<tr>
<td>Andrea Go</td>
<td>Philippine Center for Environmental Protection and Sustainable Development, Inc.</td>
<td>Metro Manila</td>
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<tr>
<td>Kristiane Velhagen</td>
<td>Philippine Center for Environmental Protection and Sustainable Development, Inc.</td>
<td>Metro Manila</td>
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<td>Jovito Benosa</td>
<td>EcoWaste Coalition</td>
<td>Metro Manila</td>
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<td>Janssen Calvelo</td>
<td>Janssen Calvelo, Break Free From Plastics Asia Pacific</td>
<td>Laguna</td>
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<td>Jill Banta</td>
<td>Break Free From Plastics Philippines Project</td>
<td>Davao del Sur</td>
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<td>Joselito Vasquez</td>
<td>Joselito Vasquez, Break Free From Plastics Philippines Project</td>
<td>Cebu</td>
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<tr>
<td>Chadli Sadorra</td>
<td>Break Free From Plastics Philippines Project</td>
<td>Metro Manila</td>
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<td>Lery Hiterosa</td>
<td>Samahan ng Mamamayan Zone One Tondo Inc.</td>
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<tr>
<td>Goldie Bansi</td>
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<td>Emmanuelle Andrade</td>
<td>Haribon Foundation</td>
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<td>Carl Mykon Dulla</td>
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<td>Louie Chin</td>
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<td>Marciin Casasag</td>
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<td>Larena Siquir</td>
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<td>Janelle Uy</td>
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<tr>
<td>Dolores Retrado</td>
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<td>Carmelo Maria Santos</td>
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<tr>
<td>Catherine Liamzon</td>
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<tr>
<td>Julie de Suzman</td>
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### BATCH 3
November 2018
Metro Manila, Philippines

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Huy Dang</td>
<td>Viet Nam Sach &amp; Xanh</td>
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<tr>
<td>Keith Roman</td>
<td>Wellington Association Against the Incinerator (WAAI)</td>
<td>South Africa</td>
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<td>Mamoun Ghallab</td>
<td>Zero Zbel</td>
<td>Morocco</td>
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<td>Hinh Dinh</td>
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<td>Sarthak Tapasvi</td>
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<td>Natasha Zarine</td>
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