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Special Issue on Sustainability

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2021

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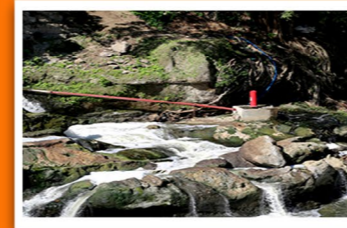
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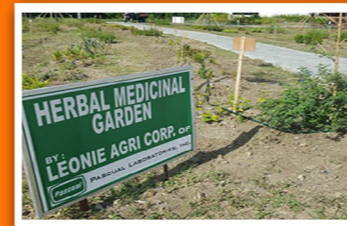
MOLINO DAM



BOAT FROM BOTTLES



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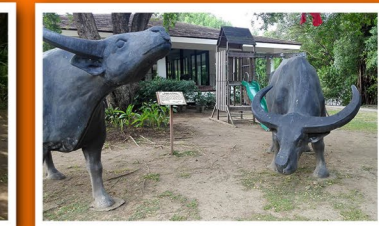
HERBAL MEDICINAL GARDEN



FARM HOUSE



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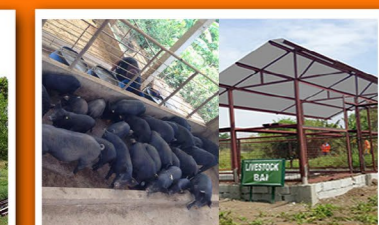
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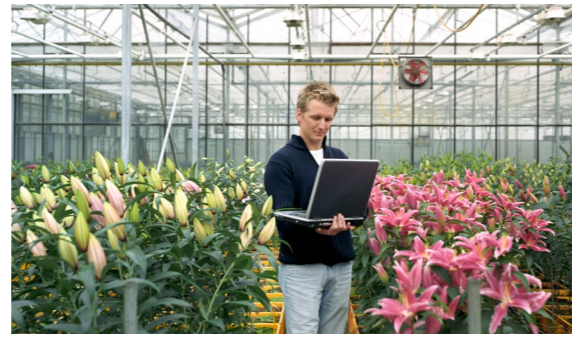


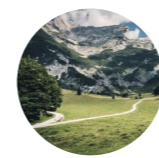
Table of Contents



8 Europa Awards



14 2021 Europa Awards
Panel of Judges



16 Welcome to Austria



18 Denmark Walks the Talk



21 Let's Make the Circular
Shift Together



22 Sweden's Trade and
Investment Strategy



24 Climate In Our Minds
On Earth Day 2021



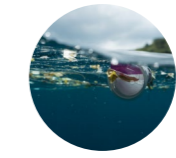
26 Nazareno / Lichauco
for ZACARIAS 1925



30 Smart and Safer Mobility



38 Clean and Efficient Energy



48 Circular Economy



60 Sustainable Food
and Nutrition



62 Philippines Partnership
for Sustainable Agriculture



72 Green and Inclusive
Finance Solutions



80 Water Resource
Management



86 The 2021 Europa
Awards Process



87 SGV's Climate Change
and Sustainability
Services



88 MPower: Reveling in
Eight Years of Service
and Sustainability



90 Event Partners
and Sponsors

Editorial

In recent years, sustainability has more and more become a topic of discussion especially now with the ongoing pandemic where there have been changes in the way we conduct business and go about our daily lives. Since 2015, when the Philippines together with other United Nations member countries expressed its commitment to attaining the 17 Sustainable Development Goals (SDGs), there has been continuous initiatives to implement policies and programs pursuant to the attainment of these goals.

The Philippine government highlights stakeholder collaboration and engagement, and emphasizes the important role the private sector plays in achieving these SDGs. The European Chamber of Commerce of the Philippines, as a home for over 700 member companies in the Philippines for 43 years, has been heavily involved in supporting sustainability-related advocacies and remains committed to push for policy reform, raise public awareness, create positive change, and maximize our impact towards sustainable development.

Recognizing the urgency of sustainability and in line with the European Commission's efforts in the European Green Deal, the ECCP has organized its first Europa Awards as it seeks to promote and recognize companies with exceptional performance and contributions in promoting sustainability in line with global standards and the Philippine Development Plan. This special issue of the EuroPH Connect aims to highlight the best practices and sustainability success stories and initiatives of companies across various sectors with the hope of inspiring others to take action.

The award categories focus on Smart and Safer Mobility, Clean and Efficient Energy, Circular Economy, Sustainable Food and Nutrition, Green and Inclusive Finance Solutions, and Water Resource Management. On page 14, we highlight our panel of esteemed judges and on page 26, we highlight the dynamic tandem of Rita Nazareno and Gabby Lichauco, the creators of the Europa Awards trophy.

I invite you to take a look at the successful and inspiring stories of the finalists for each category. For Smart and Safer Mobility, Aboitiz Equity Ventures features their project BestBus and how it is the best for people and best for the environment. Honda Philippines Inc. shares their commitment to safety while Volvo Cars Philippines focuses on their sustainability approach that's more compassionate, more considerate and how it sets them apart on page 34.

Check page 41 and read about Clean and Efficient Energy starting with Aboitiz Power-Hedcor Group that specializes in generating Cleanenergy, their brand for clean and renewable energy. Citicore Power shares how it is one of the pioneers of the renewable energy (RE) movement in the Philippines and is the first RE company that successfully implemented "Agrivoltaics" in the Philippines through Citicore Agrosolar. Coca-Cola Beverages makes sure that comprehensive strategies are in place to further improve their operational efficiencies and reduce carbon emissions throughout their value chain. MetPower develops industrial scale waste-to-energy plants using anaerobic digestion and Shell Philippines Exploration B.V. (SPEX) operates the Malampaya Deepwater Gas-to-Power Project (Malampaya) which initiated the birth of the Philippine natural gas industry, becoming a symbol of the Philippines' journey towards energy self-sufficiency.

On page 55, read about how H&M Hennes & Mauritz Inc. embraced new breakthroughs in fabric recycling technology and how achieving sustainable growth can make a positive difference to the people and the planet. MetPower provides its strategic partners with long-term circular business model solutions and Nestle Philippines is committed to taking a lead role in tackling plastic waste, one of the planet's most pressing environmental crises.

Let's take a deep dive into how Birch Tree by Century Pacific Food, Inc. (CNPF) fortified its plastic pollution reduction efforts and how East-West Seed gives opportunities for farmers to improve their lives while at the same time, ensuring more people have access to nutritious produce. GEA Westfalia Separator Philippines, Inc. talks about its GEA-Kamino Story of weathering the pandemic, Nestle Philippines shares its work with the public and private sectors especially farmers and their communities for a more robust coffee industry, and Pilmico Foods Corporation speaks about its inclusive agri-business program Project Silk and how it provides end-to-end support to community enterprises with the goal of transforming them into efficient, profitable, and growing businesses. It all starts on page 65.

Moving towards Green and Inclusive Financial Solutions, learn how CreditBPO Tech, Inc. helps bridge the financial information gap and help address financial risk among the many other services that they provide. Engie Services Philippines talks about how it develops its businesses around a model based on responsible growth to take on the major challenges of the transition to a low-carbon economy while HSBC shares their ambitious plan to prioritise financing and investment that supports the transition to a net zero global economy to name a few.

On page 83, know more about how the Alternative Indigenous Development Foundation Inc. puts emphasis on sustainable water solutions and how Coca-Cola Beverages return the water they use in their products to communities and to nature through their strategies of Reduce, Reuse, Replenish. Republic Cement also shares how they have risen to the challenge for sustainable water solutions, and their Ridge-to-Reef approach to effectively rehabilitate and manage areas where water is collected naturally in both the upland and lowland (coastal) areas.

We also put the spotlight on stories from our sustainability partners such as the Embassy of Austria, Embassy of Denmark, Embassy of the Netherlands, Embassy of Sweden, Philippine Partnership for Sustainable Agriculture (PPSA), and Manila Observatory among others. On page 90, we acknowledge our event partners and sponsors, and sustainability, advocacy, and endorsing partners who have given their full support for the first Europa Awards.

On a final note, we would like to give our gratitude towards companies and their efforts directed to sustainability. We hope you continue to advocate for sustainability and best practices in your respective industries. Let us all do our part to contribute and to work towards a more sustainable environment.

I hope you enjoy this special issue of the EuroPH Connect, and as always, thank you for your continuing support.

Florian Gottein
ECCP Executive Director



2021 EUROPA AWARDS

For over four decades, the European Chamber of Commerce of the Philippines (ECCP) has developed ties with the Philippine government and has actively advocated for reforms to make the Philippines a more competitive destination for local and foreign investments. Moreover, the Chamber has been deeply involved in sustainability-related advocacies covering energy, water management, and circular economy, among others.

Recognizing the urgency of sustainability and in line with the European Commission's efforts on the European Green Deal, the ECCP is organizing its first Europa Awards on 10 June 2021. This seeks to promote and recognize companies with exceptional performance and contributions in promoting sustainability in line with global standards and the Philippine Development Plan.

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2021 EUROPA AWARDS

 10 June 2021
  03:30 PM to 05:30 PM (GMT+8)
  via Zoom

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Award Categories

During the awarding ceremony, organizations with the most outstanding sustainability programs will be awarded in six key categories/themes:



Smart and Safer Mobility

This will be awarded to the company that has showcased innovative and sustainable mobility solutions that address present challenges in the transportation system in terms of environmental impact, security, accessibility, and infrastructure availability, among others. The company is also recognized for its business model that caters to the growing demand for safer, cleaner, and data-driven services as well as its potential to play a pivotal role in redesigning the urban mobility ecosystem.



Clean and Efficient Energy

This will be awarded to the company that has successfully incorporated the use of clean and accelerating efficient energy practices in its day-to-day operations while maintaining profit. The company will also be recognized for its use of clean energy within the country thereby aiding the government in its thrust to reduce the country's greenhouse gas emissions by 70% by 2030 as stipulated in the Paris agreement.



Circular Economy

This will be awarded to the company that has developed and adopted a circular business model enabling the company to offer and deliver goods and/or services while maintaining ecological and social costs at a minimum.



Sustainable Food and Nutrition

This will be awarded to the company that has contributed to the enhancement of the food industry in the Philippines by offering innovative products and services thereby contributing to the implementation and promotion of the "sustainable food systems" concept in the country.



Green and Inclusive Finance Solutions

This will be awarded to the company that has shown active support to businesses engaging in green projects by promoting and supporting the flow of financial instruments and other related services for the development and implementation of sustainable business models, green investments, and policies promoting sustainability. This can also cover green products within savings, credit, insurance, money transfers, and new digital delivery channels.



Water Resource Management

This will be awarded to the company that has best demonstrated excellence in utilizing an Integrated Water Resource Management approach in its water resources projects and has shown innovative thinking and application of solutions for wise water management and practices.

2021 Europa Awards Panel of Judges



H.E. Luc Véron

Ambassador Extraordinary and Plenipotentiary of the Delegation of the European Union to the Philippines

Luc Véron is the Ambassador Extraordinary and Plenipotentiary for the Delegation of the European Union to the Philippines. He is also the Head of the Human Resources Division of the European External Action Service since 2015. In this capacity, he handles talent management diplomats and other agents in the headquarters and overseas. Before this, he managed bilateral relations with Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as the Deputy Head of the Central Asia Division.



Jose Bienvenido Manuel Biona, Ph.D.

Executive Dean of DLSU Enrique K. Razon Jr. Logistics Institute

Dr. Biona is currently the Professor of Mechanical Engineering and the Executive Dean of the Enrique Razon Jr. Logistics Institute of De La Salle University (DLSU). Concurrently, he is Executive Director of the Electric Vehicle Association of the Philippines and thus has a very strong understanding and access to the whole eMobility value chain in the country. Likewise he is a Technology Advisor of Tojo Motors Corp., one of the biggest local electric vehicle manufacturing companies in the Philippines.

Mr. Jean-Marc Arbogast

Country Manager of IFC Philippines

Jean-Marc, a French national, was formerly the Adviser to the Vice-President Corporate Strategy and Resources, where he helped formulate and articulate IFC's strategic priorities while aligning resources to deliver on our ambitious agenda. Prior to that, Jean-Marc was a Senior Investment Officer in the Global Water team where he led origination and execution of transactions in the sector globally, in close coordination with regional infrastructure colleagues. Before joining IFC in 2012, Jean-Marc worked as an investment banker at BofA Merrill Lynch in New York City, advising industrial and agribusiness companies globally on mergers and acquisitions and capital markets transactions.



Mr. Christopher Ilagan

Chairperson of Philippine Water Partnership

Christopher A. Ilagan is a Chairperson of the Philippine Water Partnership. He recently joined Cargill Philippines Inc. last July 2019 as its Corporate Affairs Director. In this capacity, he provides strategic leadership in the company's corporate communications, government relations, corporate responsibility, sustainable development and branding practice areas. He is a member of the company's Country Leadership Team.



Dr. Antonio Gabriel La Viña, JSD

Executive Director and Energy Collaboratory Director of Manila Observatory

Dr. Tony La Viña is a teacher, thinker and lawyer. He is a former Dean of the Ateneo de Manila University School of Government, a position he took in 2006 after an eight year stint in the World Resources Institute. Before that, from 1996-1998, Tony was undersecretary of the Department of Environment and Natural Resources in the Philippines.



Mr. Bonar Laureto

Executive Director of Business for Sustainable Development

Bonar Laureto is the Executive Director of Business for Sustainable Development, Inc. since 2011. He got his BS Biology from Central Mindanao University and took his masters in Environmental and Natural Resources Management at University of the Philippines Open University. He is a GHG Expert and a GRI Trainer. He is also the industry partner of the World Business Council for Sustainable Development (WBCSD) in the Philippines.

Ms. Cherrie Atilano

President and Founding Farmer of AGREA Agricultural Systems International, Inc.

Cherrie Atilano is the President and Founding Farmer of AGREA Agricultural Systems International, Inc., a for-purpose and inclusive business, that is creating the first replicable one-island economy that is zero hunger, zero waste, and zero insufficiency. Cherrie started teaching farmers at the age of 12, has 22 years of vast experience in Sustainable Food Systems. She is a High-Level Ambassador of UN Scaling Up Nutrition, Food Systems Champion of the United Nations, Young Global Leader of the World Economic Forum, Board Member of the Global Alliance for Improved Nutrition (GAIN), and the Philippine Ambassador of Food Security.



Atty. Jose Layug Jr

President of Developers of Renewable Energy for AdvanceMent, Inc.

Atty. Jose M. Layug, Jr. or "Jay" is the President of the Developers of Renewable Energy for AdvanceMent Inc. or DREAM. He recently served as Chairman of the National Renewable Energy Board from 2016-2018. Jay was the Undersecretary of the DOE from 2010-2012 and headed the Renewable Energy Management Bureau, Energy Resources Development Bureau, Energy Utilization Management Bureau, Oil Industry Management Bureau and Legal Services.





Welcome to Austria – The Land of Energy-Efficient Possibilities and a Green-Colored Transition!

Embassy of Austria

With every passing year, it becomes more obvious that maintaining and fostering a clean environment for our societies will constitute one of the great challenges in the decades to come. Our own country is very much aware of this challenge and already in 2012, Austria was one of the first states in the European Union, which devised a strategy on climate change adaptation combined with clear and concrete recommendations for action.

Austria boasts an open economy with more than 62.000 exporting companies, many of which are market leaders and hidden world champions in their field of expertise. The industry sectors on environmental technologies and renewable energies are a particularly dynamic part of the Austrian economy and among the drivers of export-oriented growth. Furthermore, Austrian research institutions and companies working in the field of the so-called “green economy” register more than 200 patents every year proving our commitment to find state-of-the-art solutions to the current challenges!

The fabulous airports in Mactan, Cebu und Clark City bear witness to another field of Austrian expertise for a green transition that is ecological constructions and the technology of passive house buildings. With a growing world population living in cities, eco-innovations for the construction sector Made in Austria will support sustainable

urban development especially in fast growing economies such as the Philippines.

Together with the Austrian government, industry associations value environmental technologies, ecological constructions and clean energy technologies among the most promising sectors to secure environmentally sustainable economic growth for our country.

A green rebound from CoVID-19

2020 brought upon the world another set of challenges. But coping with these challenges is providing governments and businesses also with many new opportunities to create a greener, more resilient and more sustainable future. The Austrian government defined key investments in climate action and a climate-friendly economy as cornerstones in the economic stimulus package aimed at helping to overcome the CoVID-19 crisis. From financing research and innovation in the field of climate action and future technologies to a continued effort to expand renewable energy with the goal of generating 100 per cent of the country’s electricity from renewable energy sources by 2030. The recovery has to be a green one!

Denmark Walks the Talk

Embassy of Denmark

In 2020, Denmark led the global Environmental Performance Index. Dan Jørgensen, the Danish Minister for Climate, Energy and Utilities said: "the fact that Denmark is now number one on an index as celebrated and influential as the EPI is a testament to the fact that even a small country is capable of great change. We want to be a global source of inspiration and hopefully influence others to follow the same path we have taken".

Denmark excels in almost every indicator of environmental health, having long made significant commitments to air quality, advanced sanitation, and safe drinking water. Denmark also stands out in solid waste management, with almost all the waste being recycled, composted, or incinerated.

Denmark is steadfast in its commitment to a reduction of emissions and energy consumption as well as to independence of fossil fuels. By focusing on energy efficiency, we have managed to reduce energy consumption, while the economy has grown by almost 100% in the last 30 years. An important factor in the gradual decoupling of energy use from greenhouse gas emissions is the increase in wind power production over the last decades.

The government plans to build new islands for offshore wind power by 2030, which would triple Denmark's offshore wind

capacity. Today, over 40% of Denmark's power come from renewables, with the aim of increasing it to 100% by 2050. Denmark's ambitious 70% carbon emissions reduction target by 2030 is also enshrined in the new climate act.

Promoting renewable energy and energy efficiency is also a priority for the Royal Danish Embassy, and we have been actively participating in the Energy Transition Dialogues in the Philippines. Virtual events have been organized with high-level decision makers, Danish companies with innovative solutions and other key industry players. The Danish Energy Agency cooperates with authorities in the Philippines to further the green agenda through knowledge exchange on best practices.

And as a bike loving country, we of course encourage sustainable transportation in the Philippines, not least the biking culture that has surged in the wake of Covid-19.

In the Danish Ministry of Foreign Affairs we want to walk the talk on the global goals and maintain high credibility among staff and partners. It is our ambition to reduce our carbon footprint and to make sustainability a guideline for all of our everyday choices. By doing so, we aim to become one of world's five most sustainable foreign services within five years.

“

Energy-efficiency is hardly visible. But the cleanest, greenest and cheapest energy is the one we do not use.

”





Let's Make the Circular Shift Together: Turning Social and Environmental Challenges into Business Opportunities

Embassy of the Netherlands

The world is facing complex social and environmental challenges. The way we deal with resources will determine our future. The Netherlands strongly believes that a transition to an inclusive sustainable economy is part of the solution. In the Philippines we therefore focus on promoting solutions in agri-food, water, waste and sustainable transport to support the Philippines in this transition. International partners, governments and companies need to join hands and make this circular shift together.

The challenge

Our current ways of production and consumption are far from sustainable: ecosystems and biodiversity are under threat, the oceans are at risk from plastic waste, farmland is becoming depleted and overfishing is diminishing fish stocks. The current take-make-waste approach needs to shift towards a circular economy, one based on the principles of eliminating waste and pollution, keeping products and materials in use, and regenerating natural systems. Also for the Philippines this is the way forward to achieving economic prosperity for all. The Netherlands is strongly committed to contributing to this circular movement. Not only by setting ourselves the goal of becoming 100% circular by 2050, but also by working in partnerships across the globe that allows us to exchange knowledge and accelerate this transition together.

Turning challenges into opportunities

Applying circular principles can turn challenges such as waste related problems, climate change, reduced biodiversity and diminished quality of life into new business opportunities. Dutch companies active in the Philippines

are already applying environmental friendly product design to eliminate the concept of waste. Rethinking design of products and packaging also means saving costs, using less materials, energy and water. The Philippines has a nascent refurbishing and recycle industry which can be optimized and that can provide for better and higher skilled jobs. In the past month, the government and private sector invested in cycling and we've been part of the process, providing examples from the Netherlands and helping the discussion move forwards towards a safer, greener transport sector in the Philippines. We also provided technical support by sharing new technologies and innovation in the now completed Manila Bay Sustainable Development Masterplan (MBSDMP) to turn the bay into a healthy and thriving place to live in. (www.mbsdmp.com)

Making the circular shift together

Countries can't make the circular transition on their own. The Netherlands is committed to international cooperation that will create a long-term positive impact on this transition and that will simultaneously benefit the local economy. It is therefore a pleasure to be one of the Sustainability Partners of the ECCP. Dutch companies, knowledge institutes and NGOs work together worldwide and in the Philippines with local partners to develop and adapt innovative technologies to local conditions, create sustainable new business models, identify circular opportunities, support local circular entrepreneurship and exchange best practices and lessons learned. Together we can turn today's social and environmental challenges into tomorrow's economic opportunities. So let's seize this opportunity to partner up. Let's make the circular shift together!

Sweden's Trade and Investment Strategy

Embassy of Sweden



Just over a year ago, Sweden's Minister for Foreign Trade and Nordic Affairs Anna Hallberg launched a Trade and Investment Strategy for more jobs in Sweden. We had a chat with Camilla Mellander, Head of the Department for Trade Promotion, Nation Branding and CSR, about how to implement the strategy – despite the pandemic.

Hello Camilla! How has Sweden's Ministry for Foreign Affairs (MFA) been working over the past year to implement the strategy?

"We had only managed to work with it for a few months before the pandemic hit, which of course made things difficult for the strategy and Swedish companies. But when the export figures for the third quarter were released, it turned out that Swedish export companies had done better than expected. Team Sweden's work in the field was also impressive. The embassies and Business Sweden responded perfectly and became the companies' hands and feet on the ground and, together with our political leadership, were able to get hold of medical technology products that had got stuck."

How has the pandemic affected your work?

"Despite everything, implementing the initiatives in the strategy has gone smoothly. Work to bring about major business deals has continued in areas such as infrastructure, transport and energy. We implemented changes to export credits, with an increased emphasis on CSR. We have further developed the work on broader relations and continued work on regional promotion. Minister Anna Hallberg has conducted her regional visits in Sweden digitally and hosted three Team Sweden meetings.

"We were naturally unable to carry out the meetings physically as we had intended, but I reminded everyone that the Department for Promotion of Sweden, Trade and CSR now has a special function to support the missions abroad and the geographical departments at the MFA in the planning of outgoing foreign delegations."

Minister Anna Hallberg has listed investment promotion as one of her three most important priorities for 2021. What are the missions abroad expected to contribute to

attracting investment to Sweden?

"Yes, investment promotion is an important issue – half of our exports come from foreign-owned companies. Sweden has a good investment climate and can offer low energy costs from renewable sources, dynamic innovation environments, a well-educated workforce and knowledge and development clusters. A current example is Norrbotten, where there are exciting developments in the green transition, not least in battery manufacturing and the production of steel without carbon dioxide emissions.

"We want to attract foreign investment in these sectors and Anna Hallberg wants the missions abroad to help highlight Sweden's strengths. This is why the Swedish Institute, the MFA's expert agency on the promotion of Sweden, Business Sweden and others have been instructed to develop communications material to profile Sweden as a country for trade, innovation and investment.

"When the pandemic allows, an investment conference will be held to give Sweden an opportunity to showcase what it can offer."

What are Sweden's strongest areas?

"I would say that our strengths are in health and life sciences, battery manufacturing, autonomous transport, climate-smart textiles and new materials. We have also made a lot of progress in the digital transformation, which has been confirmed by the pandemic as the companies that have come a long way in this area have done well.

"We continue to be innovative in the forestry industry and use forestry products for everything from building high-rise buildings made of wood to the production of clothes and fuels. We are also strong in food production and use considerably less antibiotics and pesticides. This is an area where we are not so good at exporting, so there is development potential."

Do any other countries inspire you?

"Danish promotion is smart. One example is how they used the 2030 Agenda to position Denmark. Otherwise, among the Nordic countries, I would say Finland, whose strength is their focus. What they decide to do, they do incredibly well.

"Another country is Germany, where they are very good at strategically addressing future challenges with regard to autonomous vehicles, battery manufacturing, 5G and hydrogen gas – and setting goals for where they want to be at a certain point in time and allocating resources based on that. But I think we do quite well in Sweden too, we really do have a Team Sweden that works."



Climate In Our Minds On Earth Day 2021

Tony La Viña

Executive Director and Energy Collaboratory Director of Manila Observatory

Let's be clear. There is no doubt that we are now in the cusp of a global climate emergency. According to United Nations Secretary-General António Guterres.

"2021 is a make or break year to confront the global climate emergency. The science is clear, to limit global temperature rise to 1.5C, we must cut global emission by 45% by 2030 from 2010 levels."

In short, we are running out of time. In essence, we only have until 2030 to transform the global economy to avoid the worst impacts of climate change by 2050.

Those worst impacts of the climate emergency are not going to be distributed equally. Poor countries will suffer first and suffer much more even as they have contributed very little to the problem. Poor people in all countries will also be hit early and harder than the rich. Indeed, climate injustice is not only between countries but also within countries.

Causes of climate change

There are four important anthropogenic greenhouses gasses that is accumulating in the Earth's atmosphere and making the earth warmer and disturbing the climate system.

These are carbon dioxide, methane, nitrous oxide, and fluorinated gasses.

These greenhouse gasses correspond to critical economic sectors.

Energy and forestry activities produces carbon dioxide; agriculture and unsustainable waste management emits methane; industry emits nitrous oxide and fluorinated gasses as well as carbon dioxide and methane.

Urbanization amplifies these emissions. Unless we fix our cities and make them more smart and resilient, we will not be able to overcome the climate emergency.

At the global level, industrialized countries have contributed the most emissions historically and at present.

But big and middle income/emerging developing countries are increasing their contributions.

The least developed countries, which include many island states and African countries, contribute negligibly to the problem even as they are the most vulnerable to climate change.

The Philippines is a middle income country but we are, as an archipelago, extremely vulnerable to climate change. We

are a low emitter in comparison to high emitting countries like the United States and China but we emit more than most countries of the world. Island states and less developed countries emit much less than us.

Right now, there is a summit of leaders going on in the White House hosted by President Biden. I hope that meeting will yield good outcomes as we are already facing climate impacts.

Impacts of climate change

The impacts of climate change are not distributed equally.

Disasters caused by extreme weather events impact the poor the most, as we saw in the last two months of 2020 when Typhoons Quinta, Rolly, Siony, Tonyo, and Ulysses hit Luzon in a span of six weeks.

It seemed like a lopsided air war where our people and communities were completely helpless, which was then followed by a ground invasion in the form of floods that were abetted by previous bad decisions on land use that disadvantaged the poor even more.

Sea level rise is also going to disproportionately impact the poor as they do not have a lot of options in terms of relocating from the vulnerable areas where most of their current settlements are.

Likewise, it's the poor in both cities and rural areas that will be bear the brunt of food and water scarcity as their options are limited.

Loss of biodiversity will also affect the rural poor, and especially indigenous peoples the most as they rely on the richness of biological resources for food and livelihoods, not to mention their spiritual connection to the wildlife that surrounds them.

Finally, the climate emergency will give rise to serious public health impacts for everyone but especially for the poor. Among others, we could see more Zoonotic diseases that result in pandemics and while rich and poor will be affected, it is the latter that will be affected the most as we are seeing today.

Mitigation, adaptation, and integrated solutions

There are mitigation actions we can take – abandon coal and oil completely as energy sources as early as possible and hasten to transition to a renewable energy based system,

fix our solid waste management system, change production and consumption patterns radically to prevent all forms of pollution.

In addition to mitigation, we must also implement adaptation strategies and interventions, including reducing risks to climate and other disasters, improving land use and infrastructure so that anticipated climate challenges can be addressed early on, and of course being diligent in protecting our watersheds and other sources of waters so we can preserve all options.

But I would say that, together the energy transition which we must absolutely do as our contribution to global climate mitigation, the priorities for the Philippines are those solutions which integrate both mitigation and adaptation – which will meet these dual objectives and are also good for the economy and especially for the poor.

These are nature based solutions such as expanding protected areas and protecting as well as enhancing our forests, implementing climate friendly agriculture that emit less if not zero emissions while increasing production and uplifting livelihoods, and renewing our cities to make them more resilient and adaptive.

For the latter, every city is different and it is imperative to identify the threats and risks now and to make the critical land use decisions and implement well-designed interventions as early as possible.

From personal to political action

There are things we can do to contribute to solutions and not add to the problem.

For individuals and families, the key phrase – low carbon lifestyles from what we eat, how we commute, our traveling habits, and how we consume energy at work and home, what we throw away and keep, avoiding single use plastics, etc.

We can also do community actions like tree planting, urban gardening, and zero waste management.

But while we should all do what we can, we must not forget that a global problem requires a global solution and individual actions by themselves will not bring the system change we need.

The climate emergency is a social justice and human rights problem which roots are structural.

To effectively respond to climate change, to avert worse, governments and big corporations must transform and lead the way towards a just transition that does not sacrifice again the needs and interests of the poor.

For the Philippines, this means that we should be serious in achieving the targets we have adopted in our newly submitted Nationally Determined Contribution to the Paris Agreement. Our emissions must peak by 2030 and we must reduce our emissions by 75% in 2030. My view is that these targets are not ambitious enough, especially because of our reliance on foreign aid which might not be available. But for now, we can start with this and we must now develop and adopt the plans and programs that we will implement to achieve these targets. This include also proposing concrete projects our international partners can support.

Bid business must also radically change.

Concretely, Today, April 22, 2021, marks both Earth Day 2021 and the start of annual shareholders' meeting season of our local banks, starting with BPU. We are reminded of the pressing need to address the climate emergency and the role our banks play in funding a major driver of climate change: coal. Sadly, as well-documented by the Withdraw from Coal Coalition (WFC), some Philippine banks are contributing to our reliance on this deadly, costly, and destructive energy source by channeling billions of dollars into coal developers and projects around the country. According to WFC, BPI is the top financier of coal, closely followed by the Philippine National Bank (PNB) and BDO Unibank.

I join the rest of the world in calling on our banks to withdraw from coal. We challenge them to bring this up during their annual shareholder's meetings, come up with clear public policies to turn their portfolio coal-free, and use their financial resources to support clean and affordable renewable energy.

Climate is in my mind on Earth Day 2021. It's a huge challenge. But I am confident we can overcome this challenge if put all our minds, imagine the possible, do the right thing ourselves, and succeed in getting the big players to do that too.



“An instinct for good design, coupled with their razor-sharp wit and generous spirit, defines the dynamic tandem of Rita Nazareno and Gabby Lichauco.”

V. Montenegro, 2021

The design duo Nazareno/Lichauco has been collaborating on projects since 2016 - developing new product designs and concepts for numerous brands, curating collections, mentoring designers and highlighting contemporaneity and innovation in traditional craft and materials while working with a network of workshops and designers across the Philippines and exhibiting in Italy, France, Japan and America.

Nazareno/Lichauco designed and, along with ZACARIAS 1925/S.C.Vizcarra workshop studio, produced the trophy for the inaugural Europa Awards for the European Chamber of Commerce. Highlighting sustainability and innovation, the sculptural trophy is a combination of traditional craft and contemporary design, utilizing the ZACARIAS 1925 Monolith Crumpled weave in wicker and Philippine mahogany.

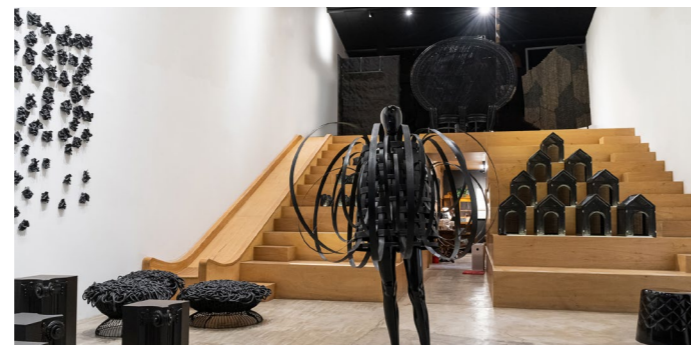
“Rita and I look forward to the Europa Awards and are glad to be able to be a part of it with the design and production of the trophy. We are thrilled to be collaborating with ECCP and we hope for more collaborations in the future,” Lichauco says.

Rita Nazareno is an Emmy Award-winning former Television Creative Services Producer whose shift to design is a product of passion and family ties. She is Creative Director of ZACARIAS 1925, a brand of hand-woven bags and accessories that place a contemporary thrust in the traditional craft of weaving, made exclusively at S.C.Vizcarra, a workshop her grandmother founded in Manila in 1925. Nazareno holds Design & Creative Process workshops and talks for varied institutions such as Watari Museum's On Sundays Tokyo, Nomi Network Phnom Penh, Museum of Contemporary Art & Design Manila and Selvedge World Fair London.

Gabriel Lichauco is the founder of Open Studio, a multi-disciplinary design consultancy that focuses on space, installations and objects. He was named one of Asia's "100 Leading Designers" by Design Asia: The New Wave. He is a professor of Design and Head of Special Projects at the College of St. Benilde, School of Design and Arts. He has exhibited at various international tradeshows and exhibits, Lichauco has participated in the 2017 Venice Art Biennale, 2016 XXI Triennale and several editions of Salone Internazionale del Mobile di Milano.

Nazareno/Lichauco curated the 2019 Philippine participation at Maison et Objet Paris under Kindred Design Collective for Citem's Design Philippines.

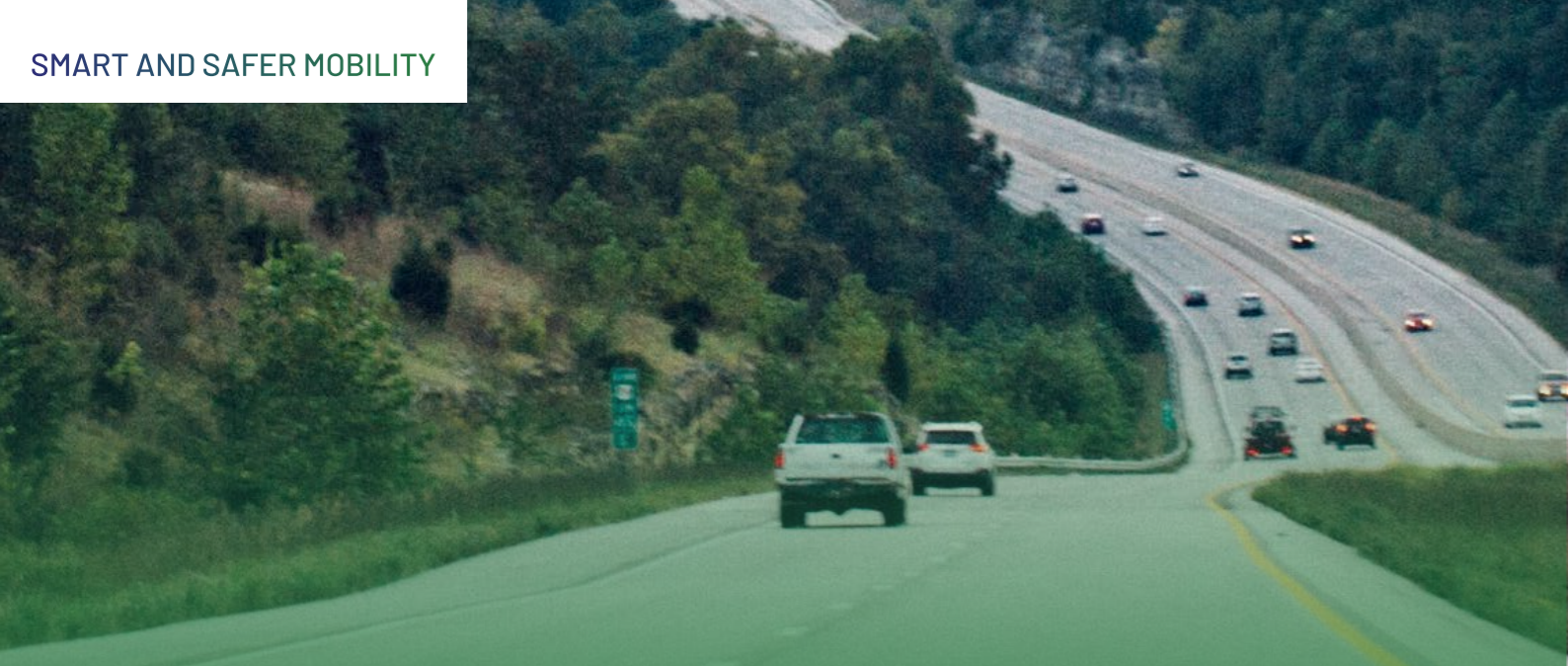
They have since done the creative direction for the 2020 and 2021 Maison et Objet editions. Nazareno/Lichauco curated the 2020 design exhibition



ITIM: Material Manipulations in Black, originally slated for Milan Design Week's Fuorisalone in 2020 and re-installed in Manila and online at www.fameplus.com/itim/ They have designed pieces for brands such as E.Murio, Vito Selma, Venzon Lighting, and JB Woodcraft, to name a few.







Smart and Safer Mobility

Mobility plays a vital role in delivering prosperity and the promise of improved quality of life as cities across the globe including those in the Philippines face rapid urbanization. In recent years, smart and safer mobility has become at the forefront of the sustainability agenda in government circles, corporate boardrooms, academe, and civil society. The development of sustainable transport systems must reconcile the environmental, social, and economic challenges associated with a growing population in concentrated areas with limited space.

In the case of the Philippines, the road ahead remains an uphill battle due to a host of challenges with traffic congestion as one of the most evident for urban planners and city dwellers alike. According to the 2019 TomTom Traffic Index, daily gridlocks in the Philippines' densely populated capital, Metro Manila, is the second-worst in the world next to Bangalore, where the average driver spends an additional 10 days and 17 hours in traffic queues.

Congestion also carries environmental consequences as transportation accounts for 15% of the country's total greenhouse gas emissions and the third largest contributor by sector next to electricity and heat, and agriculture. Moreover, pre-pandemic figures point out that the air pollution level in Metro Manila is higher than the country's average; both of which, nevertheless, exceed guidelines set by the World Health Organization (WHO).

The current traffic situation in the Philippines also costs the country PHP3.5 billion in daily economic loss. Unfortunately, the economic impact could rise to PHP5.4 billion by 2035 if no substantial policy interventions were made.

At the same time, thoroughfares in the country remain hotspots for accidents that put the lives of motorists, commuters, and pedestrians at great risk. Despite being compliant with best practices from the WHO to have various national legislations related to road safety in place, the Philippines was ranked by the same health body to have the fifth highest road mortality rate in Southeast Asia.

Considering these developments, stakeholders, particularly industry practitioners and policymakers, are working together to advance policies and solutions on innovative and sustainable mobility systems that will address the current transportation challenges. Digital technology also enables and supports stakeholders in reimagining the mobility ecosystem as it becomes more complex and gives rise to transformational trends such as shared mobility, autonomous technology, digitization of automotive production, and e-mobility, among others.

With the COVID-19 pandemic ushering the unprecedented growth of e-commerce in the Philippines, a notable shift towards mobility-as-a-service such as courier services and transport network vehicle service (TNVS), to name a few, will add demand for urban commercial transport and another layer of complexity in the current situation.

As the Global Goals require the concerted efforts of all sections of society, including the business community, so does the overarching objective to increase the sustainability footprint of the transport sector. As such, the ECCP stands ready to work with stakeholders to unlock the gains of future mobility solutions and create a positive impact that will benefit the environment, the community, and the economy.



Smart and Safer Mobility Award

As cities grow in many parts of the world including the Philippines so does the growing demand for seamless, safe, and sustainable mobility solutions. Nevertheless, many urban areas continue to face various challenges that pose risks to the health of the public, the environment, and the economy. Pre-pandemic figures show that Manila ranks among the worst congested cities across the globe with the 2019 TomTom Traffic Index pointing out that Metro Manila traffic is the second-worst in the world next to that in Bangalore, India.

In its 2019 report, the global authority on traffic congestion statistics noted that congestion level in the Southeast Asian metropolis reached 71% with drivers spending an average of additional 10 days and 17 hours on the road – or enough time to plant 258 trees which could offset the air pollution brought about by the gridlock. Moreover, an oft-cited figure from the Japan International Cooperation Agency shows that the country is losing PHP3.5 billion every day due to the current traffic situation. Unfortunately, the daily economic loss could increase to PHP5.4 billion by 2035 if no substantial interventions were made.

In addition to traffic congestion, roads in the country are vulnerable to accidents and hazards which put motorists, commuters, and pedestrians alike at great risk. In 2019,

the Philippines recorded 13,016 road traffic deaths ranking it the country with the fourth highest road mortality rate in the region behind Indonesia (30,667), Vietnam (29,475), and Thailand (22,427). This comes despite the country being compliant with best practices from the World Health Organization to have various national legislations related to road safety in place.

As such, urban planners, transportation experts, and policymakers are working together to advance policies and solutions on smart and safer mobility systems that will address the social, environmental, and economic challenges facing urban mobility.

To that end, the European-Philippine business community will present the Smart and Safer Mobility Award to highlight the great strides made by the deserving enterprise which showcases innovative and sustainable mobility solutions that help address the current transportation challenges in the country. The awardee will also be recognized while creating value and demand towards a more human-centered, environment-focused, and data-driven mobility ecosystem.





Road Safety Covenant Signing Among Partners Headed by LTO Chief Edgar Galvante

The BestBus : Best for People, Best for the Environment

Aboitiz Equity Ventures

Public transportation in the Philippines, especially in urban centers, is trumped by demand for private vehicles, which threatens to set the country back on its Paris Agreement pledge to reduce its carbon emissions by 70% by 2030. The Aboitiz Group saw the need to help balance people's mobility and carbon neutrality while uplifting lives through sustainable solutions. Through its subsidiary Davao Light and in partnership with the city government of Davao, GET Philippines, and QEV Technologies, the first fully electric, free-ride shuttle service in Mindanao called BEST Bus was rolled out in December 2020.



BEST Bus delivers an efficient, comfortable, and environmentally sustainable transportation option for Davao City, giving commuters the benefits of clean technology made more inclusive. Seven BEST Buses ply the streets and the only entry requirement is to scan the QR code generated by the local GET-PASS app. Data collected by the free app also serves in contact tracing, a much-needed feature for the city's pandemic response.

The investment for running each electric shuttle is PHP3.63 per kilometer, almost half of what it costs to operate a non-airconditioned diesel jeepney. In its first four months, BEST Bus has served 15,891 app-registered riders and 66,669 rides in 4,673 carbon-emission-free trips, this despite the limited capacity and travel restrictions owing to COVID-related safety protocols.

The Aboitiz Group hopes to inspire a movement across the country where public-private partnerships underscore how business operations can focus on environmental management, social responsibility, and good governance to ensure long-term value creation, financial growth, and business capability. BEST Bus sends the message that people's mobility, central to our daily lives, and clean energy, are two important pillars of our future development.

Road Safety For Our Family

Honda Philippines, Inc. - Honda Safety Driving Center

Honda worldwide has always been committed to safety as expressed in its Global Safety Slogan "Safety for Everyone". Taking this mission to the operations in the Philippines, various traffic safety promotions and initiatives have been continuously implemented by the group. However, as the toll of traffic accident is increasing sharply, Honda, as the leading mobility company, would like to help solve the problem by a sustainable long term effort not only within the group of companies operating in the Philippines, but outside its four corners

The Road Safety For our Family local campaign started here in the Philippines in 2016 is a clear proof that we in Honda take Road Safety very seriously. It is not merely an idea, or a concept. But a sustainable mission that drives all of us forward towards the realization of our objectives to educate the public through partnerships, and to help reduce incidents of road crashes.

With the launching of Road Safety for our Family campaign reaffirms its commitment to safety. The Honda groups vision on "One Honda Road Safety" program is to unify and guide Honda operations for road safety promotion to the same direction of building a community of safe and responsible road users.

Starting within its area of control (employees, dealers and suppliers) on areas where it manufacture its product such as Laguna, Batangas and Metro Manila,

This campaign aims to further expand to different regional

offices of Honda Philippines in Cebu and Davao. Ultimately, with the support of all partners we intend to expand this campaign in more key cities across the country.

This project that involves various partners such as Honda stakeholders (Associates, Dealers and Suppliers), government (including Local Government Unit or LGU), University/School (Kids and Youth), Industrial Parks, Private Companies (through Honda Safety Driving Center) and the society in general aim for the same goal to reduce road accidents which is the major concern for every sector.

As part of its strategic and sustainable effort, we shall be developing partners to be pro-active and self-sufficient in expanding our program within their respective operations by sharing different related public materials, provide simple and effective method and practical skills training to guide their respective trainers in developing their own unique training modules and program tailor fit to the nature of their business and or operations.

Even with the current pandemic where face to face interactions are not allowed, our team continue to sustain this campaign though various effort using social media platform (Facebook and Instagram), and other software based conference room solutions or platform (e.g. MS Teams, Google Meet and Zoom). We shall continue to be pro-active in sustaining and advocating this campaign until we are able to build a culture of safe and responsible road user that cares for everyone and every family.



The Future of Electric Forum - Atty. Albert Arcilla's Opening Remarks

Omtanke: Our Approach to Safety and Sustainability

Scandinavian Motors Corp. (Volvo Cars Philippines)

At Volvo, we don't just see cars differently - we see the world differently.

We have a way of doing things that sets us apart - an approach that's more compassionate, more considerate. And it means we think before we act.

In Sweden, we have a word for it: Omtanke.

Omtanke fuels our insatiable curiosity, our restless desire for improvement, and inspires us to think deeply and divergently about everything around us.

In line with this approach and our safety vision and electrification commitment, we at Volvo Cars Philippines has developed local social responsibility programs that aim to educate people regarding road safety and engage future leaders in creating solutions for real-world problems. These initiatives are: Safe Roads and Fika Talks.



Volvo Fika Taks - Fashion Revolution ([L-R] H.E Harald Fries, Ryan Madamba, H&M's Dan Mejia, and UP Diliman's Prof. Kristyn Caragay)

Fika Talks: Sustainability Forum

In 2019, we already took a step towards electrification when we launched our line of plug-in hybrid vehicles, the first PHEV introduced in the Philippines. And by 2023, all of our models will be electrified.

In relation to our electrification vision and approach to sustainability, in 2019, we started engaging with universities and student organizations with our local sustainability program called 'Volvo Fika Talks'. This initiative aims to

facilitate open discussions between though leaders, industry practitioners, future leaders, and advocates, to share wisdom, gain insight, and spark creativity in solving real life problems we are currently facing.

As of this writing, we, together with our external partners, have already managed to organize three (3) sustainability talks (2 face-to-face and 1 online) and invite students from various colleges and universities: Ateneo de Manila University (ADMU), De La Salle University (DLSU), SoFA Design Institute, University of the Philippines (UP), and University of Sto. Tomas (UST).



Safe Roads - Turnover of Road Signages to DLSU Greenhills ([L-R] Volvo's Mr. Chris Yu, Atty. Albert Arcilla, LSGH's Ms. Maria Donna B. Ines, and Mr. Ramelle Javier)

Safe Roads by Volvo

Other than sustainability talks, we also developed a safety program for schools to bring and create awareness of road safety not just to students but to all road users. This is to provide a safer and accident-free community among all road sharers within school grounds. Currently, we have already deployed more than sixty (60) road signages in our partner schools, and are looking forward to conduct road safety seminars among parent, school personnel, school bus drivers, and students in the second phase of this program.

With Omtanke as our guiding principle, we are able to focus on things that matter, and focus on making those things better - for everyone.

BUY LOCAL BUY FILIPINO TOGETHER TOWARDS A STRONGER REPUBLIC





Tripartite Approach in Addressing the Energy Trilemma: Updating the 20-year Philippine RE Agenda¹

Monalisa C. Dimalanta

Senior Partner – PJS Law; former Chairperson–National Renewable Energy Board (Philippines)

As the wave of energy transition hit shore after shore all around the globe in 2020, the sands also shifted in the Philippines as we marked two milestones in our energy journey:

- (1) the completion by National Renewable Energy Board (NREB) of the review and updating of the country’s National Renewable Energy Program (NREP) – the 20-year roadmap towards increased renewable energy (RE) utilization first adopted in 2010 pursuant to the RE Act of 2008; and
- (2) in the last quarter of the year, the moratorium on new coal-fired power plants declared by the Department of Energy (DOE).

It would be critical to diligently monitor how these key policy instruments are implemented in the context of how the country is addressing the trilemma of energy security, energy equity and environmental sustainability. In the course of reviewing the 2010 NREP, for instance, the NREB took a longer and broader view of promoting greater RE utilization while at the same time addressing the challenges of energy autonomy and affordability. This comes from the recognition that the delay in the implementation of the programs under the RE Act has taken a heavy toll on the health of the country’s energy systems:

- 10 years from the enactment of the law, RE share in generation has gone down from 34% in 2008 to 20.8% in 2019;
- correspondingly, the country’s level of energy self-sufficiency in power declined significantly from 67% in 2008 to 46.8% in 2019, owing from the fact that almost 80% of the non-RE resources in the system (save for the share of natural gas) are imported; and
- against this backdrop of lower RE share, Philippine power rates actually remain among the highest in ASEAN, with generation rates charged by utilities to end-users averaging PhP5.25/kWh (USD0.10/kWh) in 2019–2020, with some customers being charged as high

as PhP7.44/kWh (USD0.15/kWh).

In the public consultations for the draft 2020–2040 NREP conducted in March 2021, the DOE presented two scenarios leading up to achieving the 35% target RE share by 2030:

- First, the DOE adopted a simple method in calculating the Renewable Portfolio Standard (RPS) requirements (Simple Method) in determining whether the current 1% RPS level would be sufficient to meet the 35% target RE share based on the forecasted demand assumptions in the Philippine Energy Plan (PEP) and the forecasted generation from committed RE projects for 2019–2040.
- The second scenario was the submission by the NREB (NREB Model) to the DOE using a capacity planning software with assumptions based on the DOE data as of February 2020, the cost parameters and capacity factors per technology agreed with DOE, as well as seasonality of RE plants as reflected in the WESM data.

Comparing the results of these two models:

- Both show that the implementation of the RPS program is key to increasing the share of RE in the generation mix. Without RPS, the continuous decline in energy sustainability and energy self-sufficiency levels will continue. In fact, without RPS, under the Simple Method, the share of RE will go down to a measly 6.7% by 2040.
- If RPS remains at 1% (minimum under the RE Act) for the next 20 years, the decline in RE share will still continue and we are certain to not meet the 35% RE target by 2030.
- In both models, it is only by increasing the RPS level to more than 2.5% starting 2023 that we can ensure a steady increase in RE share in the system, reverting to its 2008 level of 34% by 2030 and increasingly dominating the mix by 2040, with more than 55% share.
- Moreover, since the NREB used a capacity planning software that optimized build and dispatch based on levelized cost of electricity (LCOE), the NREB Model also yielded the average system LCOE for our proposed

2.52% RPS level. This was at PhP3.18/kWh – lower than the system average generation charges for 2019–2020.

What programs will need to be in place to reverse the decline trajectory on energy security, affordability and environmental sustainability that has come with diminishing RE share over the last 10 years?

The NREB proposed to the DOE several programs under the NREP following a “whole-of-government, whole-of-society approach”. We can summarize the programs into three, aligning with the challenge of the energy trilemma:

(1) Mandatory Programs

The DOE will need issue soon the increase in RPS levels in order to send the proper signals to the market and trigger the much-needed investment. The Green Energy Auction Program will also need to be implemented in support of the RPS Program. The auction to be administered by the DOE centralizes the procurement of RPS volumes by all utilities and aggregates the volumes required by RPS-mandated participants to meet their RPS obligations. The auction establishes a platform that promotes competition and transparency in pricing, and provides RE developers access to the utilities market which normally would not be available if they were to participate in the general tender processes conducted by utilities.

For the off-grid program, on the other hand, a more bespoke, fit-for-purpose approach compels a review of the current rules.

(2) Voluntary Programs

The Net Metering Rules need to be further simplified to allow more end-users to be prosumers. Funding facilities are also required for the installation of solar home systems to promote greater inclusivity in the program. While the current rules still contemplate on-site, customer-owned and used facilities, moving forward, we will need regulations to keep up with available technology that already make it possible to have virtual power plants and corporate PPAs, as in other jurisdictions. This can be developed in the medium term. Without an aggressive customer-awareness campaign, the benefits of RE for end-users under Green Energy Option Program (GEOP) will not be realized. The NREB already partnered

with the European Chamber of Commerce in the Philippines to promote the “REPH100 Movement” – inspired by although different from the RE100 global initiative. In REPH100, we aim to gather Philippine companies and Philippine-based global companies that have the shared objective of having their facilities powered by 100% RE, which is possible under the GEOP. The NREB is also working with the Board of Investments and the Department of Trade and Industry in advising the MSMEs of the immediate benefits of procuring RE, such as the zero-VAT rate of RE, among others.

(3) Transition Enablers

Grid and grid capacity planning will need to keep up with the development in power systems. The tools for these are already available, particularly with the first release of the Competitive RE Zones (CREZ) Study prepared by the DOE, with the support of the US National Renewable Energy Laboratory. The CREZ Study identified 25 sites all over the Philippines with high potential for solar and wind power development, together with the transmission availability or upgrades required for the RE penetration. The development of these RE Zones is expected to yield around 35GW of capacity by 2040 from wind and solar alone.

As technologies evolve, there needs to be continuous review and updating of the regulatory framework. For instance, we see the promise that micro-grids hold in meeting the challenge of energy access and affordability. Yet, the regulatory framework remains locked against these technological set-ups, effectively depriving consumers of a critical energy resource and demand management option.

Ultimately, nothing short of a coordinated, society-wide effort is required in meeting this energy challenge. The task at hand is beyond what a single agency or group can do. It requires all hands to be on deck and all eyes focused on a shared vision of an energy self-secure and sustainable future.

¹ This article is based on the speech given by the author during the 2nd LNG & Clean Energy Investment Summit held online on 23 March 2021.



Clean and Efficient Energy Award

The concept of clean and efficient energy has proven itself increasingly significant in the past years due to the heightening energy demand, together with the aggravating environmental concerns across countries. According to the United Nations Development Programme, 73% of human-caused greenhouse gases, a key factor to climate change, is attributable to energy.¹ Meanwhile, in as far as renewable and efficient energy plays a crucial role in advancing sustainable practices, the bigger picture exhibits an even greater contribution being at the core of supporting livelihoods, ensuring the continuity of day-to-day operations and activities, as well as stimulating socio-economic development.

For the Philippines, the Department of Energy (DOE) projects a needed additional capacity of 43,765 MW by 2040.² Augmenting the country's energy supply requires intensifying energy generation activities. However, with a record of modest growth for the previous years,³ renewable energy has yet to further its share in the Philippine power mix. Nonetheless, to create a balancing act vis-a-vis sustainability, measures have been established to

institutionalize policies on renewable energy as well as energy efficiency. These include, among others, the Renewable Energy Act and Energy Efficiency and Conservation Act, that not only promote increased investments in the energy sector, but likewise provide frameworks on how energy transition can be adopted by all other stakeholders. This call to action then gives way for all businesses to advance their sustainability measures that helps spur innovation, collaboration, and even creates positive spillover effects on communities and individuals.

For this reason, the Europa Awards' Clean and Efficient Energy Award is presented to showcase companies' best practices on incorporating the use of clean energy and accelerating efficient energy practices in day-to-day operations while maintaining profit. The awardee will also be recognized for its use of clean energy within the country, thereby supporting the achievement of international obligations and local energy and sustainability targets, including carbon emission reduction, as well as promoting energy stability and cost-efficiency.

1 United Nations Development Programme. (n.d.). Sustainable Development Goals (SDG) Goal 7: Affordable and Clean Energy. Retrieved from <http://undp.org/content/undp/en/home/sustainable-development-goals/goal-7-affordable-and-clean-energy>
2 Atty. Fuentesbella, F. (2018). Energy Investment Opportunities.
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As RE company, safeguarding the environment is our responsibility

Aboitiz Power - Hedcor Group

Hedcor, a subsidiary of AboitizPower, specializes in generating Cleanergy – our brand for clean and renewable energy (RE). We operate 22 run-of-river hydropower plants with a combined capacity of 278 megawatts, across the Philippines.

Our vision is to be recognized as one of the largest asset managers through growing our RE fleet by 2030. In doing so, the group stands by its sustainability policy; we can do well by doing good, by always making the right long-term decisions that balance the interests of people, planet, and profit.



Apart from generating Cleanergy, we go the extra mile to serve our community and protect the environment. As what our brand promise echoes, we Advancing Business and Communities through (1) equipping our partner communities with resources and skills that enrich community resilience, and (2) proactively ensuring that our business leaves a minimal impact to the environment. These efforts are aligned to the 2030 Agenda for Sustainable Development Goals.

Our sustainability efforts are being monitored through our strategic balance scorecard and are being discussed

regularly during senior management meetings. We also partner with key stakeholders by co-creating a Multipartite Monitoring Team that will do check-and-balance for our Environmental Compliance Certificate's conditionalities.



We also have an internal sustainability team to ensure that our organization is guided with green practices like managing carbon footprints, reducing wastes, recycling, and switching off lights when not in use. The team is responsible for ensuring the group's compliance to environmental regulation, as well as spearheading the implementation of initiatives like reforestation, eco-market day, and banning of single-use plastics in our facilities.

Moreso, we value innovations and digital solutions. This is one of the reasons why Hedcor was able to navigate through the pandemic without stopping operations. Prior to the pandemic, the group has already been practicing the work-from-home scheme—making tasks, files, and processes accessible online yet secured by Information Security measures.

Digitization is being championed in our plant operations. Most of our plants—ageing or new—have undergone automation to improve operational efficiency, enhance safety, and enable real-time monitoring.



Citicore Renewable Energy Corporation

Citicore Power, Inc. ("Citicore") is one of the pioneers of the renewable energy (RE) movement in the Philippines. It continues to push forward its goal of making the most out of natural resources by harnessing RE that provides impactful value added benefit to the communities it serves.

Citicore is the first RE company that successfully implemented "Agrivoltaics" in the Philippines through Citicore AgroSolar. This project adapts sustainable farming processes, growing crops under the solar panels, maximizing the land use in Citicore's solar plants which also provides sustainable livelihood to small farmers in the host communities.



Citicore partners with government units and communities where they operate, educating the public on the rewarding benefits of sustainable RE sources, and helping the government reach its goal of "raising the installed RE generation capacity by 2030".

Citicore is committed to its purpose by adhering to responsible practices in harnessing renewable resources

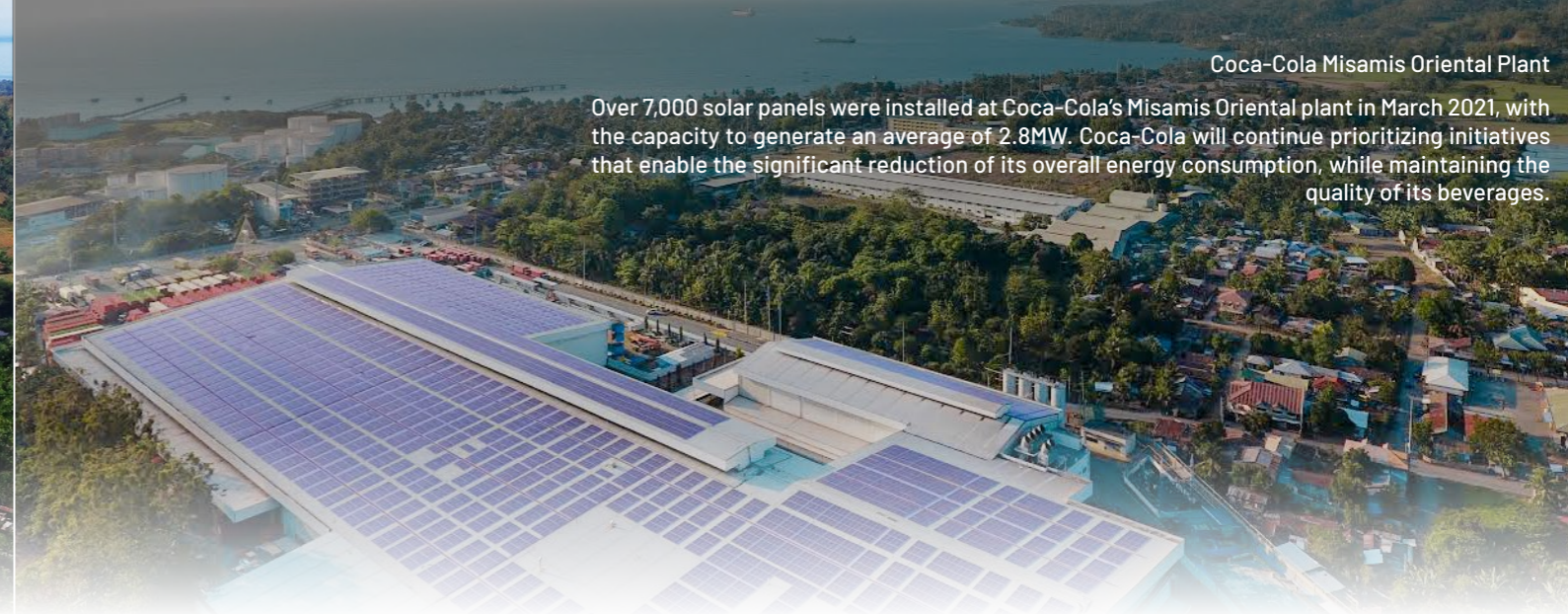
to produce clean and efficient energy and maximizing the use of natural resources to create more meaningful impact through sustainability.



Citicore has a healthy mix of operating assets and solutions in the renewable solar energy, water, and biomass spaces.

The company owns and operates eight solar plants across the country, with 163 Megawatts combined capacity, one of the largest in the Philippines. Over the next 5 years, Citicore has a robust pipeline of projects to produce 1,500 Megawatts of RE.

Citicore's solar plants has high performance ratio reaching up to 99.7% reliability as evidenced in its plant performance report. All solar plants are located in regions with high irradiation, producing good power output with higher levels of efficiency as supported by the National RE Laboratory Irradiation Study. All its solar plants contribute to the reduction of approximately 231,720 tons of Co2 annually, a testament to its commitment towards a net zero carbon emission future.



Over 7,000 solar panels were installed at Coca-Cola's Misamis Oriental plant in March 2021, with the capacity to generate an average of 2.8MW. Coca-Cola will continue prioritizing initiatives that enable the significant reduction of its overall energy consumption, while maintaining the quality of its beverages.

Business Growth Anchored on Sustainability

Coca-Cola Beverages Philippines Inc. (CCBPI)

We strive to ensure that every Coca-Cola beverage was made and delivered to our customers with the highest standards of safety, quality, and sustainability. This means comprehensive strategies are in place to further improve our operational efficiencies and reduce carbon emissions throughout our value chain— from using biomass boilers that are fed rice hulls as fuel, to upgrading our fleet to Euro IV-V compliant trucks; from improving systems in manufacturing, to replacing old refrigeration equipment to new units that utilize LED lighting and hydro carbon refrigerant.

One of our goals in the Philippines is to be best-in-class in energy use ratio and clean energy use in South East Asia by 2023. Our roadmap to achieve this goal includes clean energy integration in our operations, improving our energy use ratio (EUR), and strengthening our energy savings initiatives.

Less energy, more beverages

Our energy savings initiatives allow us to increase our energy efficiency in our 20 manufacturing sites. Through these, we have reduced our energy consumption even as we expand our production capacity—we are producing more beverages while using less power in our plants.

CCBPI's Energy Use Ratio (EUR), or the amount of energy used in manufacturing our beverages, has significantly improved over the years. To date, we have been able to improve our EUR by 30% since 2014. Initiatives to achieve this goal include optimizing operating systems for leak and steam management, instituting standard operating procedures for machines and heavy equipment, and employing world-class technologies that are energy efficient. Classified as Confidential. Please do not forward this to unintended users. Otherwise, request necessary permission.

Renewable energy used to manufacture beverages

Approximately 65% of our total energy consumption in manufacturing is being sourced from renewable energy (RE). In fact, it can be said that the fastest bottling line of Coca-Cola in the world, which is housed in our Canlubang Plant, is being powered by RE. This plant was the first site we transitioned to RE back in February 2018.



All our manufacturing sites that are viable to be converted to 100% RE—given the existing grid and connectivity infrastructure—have been transitioned to use clean energy. These seven sites are Sta. Rosa, Canlubang, Ilocos, (Calasiao) Pangasinan, Cebu, San Fernando in Pampanga, and Meycauayan.

Despite all the challenges our business faced in 2020, we remain on track with our energy roadmap for our local operations. Almost 14,000 solar panels have been installed in our Misamis Oriental, Davao del Sur, and Bacolod plants—with the capacity to generate over 5.2 megawatts in total.

These achievements are only the beginning of our wide-reaching transition to using clean energy more prevalently in our operations. Solar energy projects are underway in our mega plants: Canlubang, Sta. Rosa; and in Zamboanga, Cebu, Ilocos, and Tagbilaran.



FRUIT WASTE TO ENERGY: METPower pioneers Sustainable Organic Waste Management Solutions in the Philippines

METPower

METPower is at the forefront of waste management and renewable energy development in the Philippines, providing long-term solutions for its partners and contributing to the country's greenhouse gas emissions reduction targets in the Paris Agreement.

Utilizing leading technology from Lipp GmbH of Germany, METPower develops industrial scale waste-to-energy plants using anaerobic digestion, a biological process of digesting organic waste in the absence of oxygen and subsequent conversion to biogas. As a renewable energy source, biogas can replace fossil fuels not only for power, but also for difficult to decarbonize and electrify sectors.

Long-term solutions for Dole Philippines

In November 2018, METPower signed a long-term partnership with Dole Philippines (Dole) to develop, build, finance, and operate two biogas plants embedded within Dole's cannery facilities in Surallah and Polomolok, South Cotabato.

METPower will process Dole's fruit wastes into biogas, which is then used by Dole as diesel-replacement and power supply for their cannery operations. This project does not only provide Dole with a clean source of energy, but also

a reliable embedded source of baseload energy, avoiding 265,000 tons of CO2 equivalent annually.

Despite the pandemic, both plants will be operational by 2H2021.

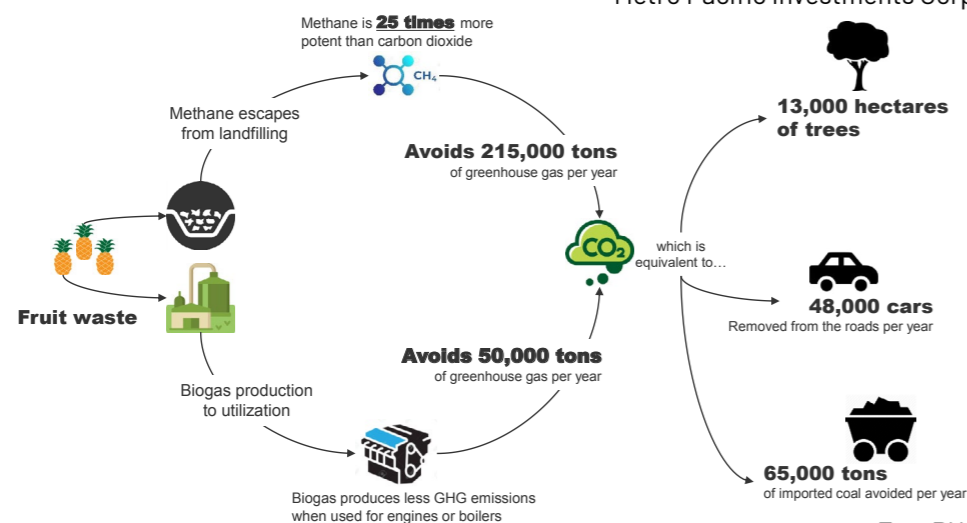
This project has garnered financial grants from the international community. Through Japan's Joint Crediting Mechanism (JCM), the project received a subsidy equivalent to 50% of the qualified capex. From the German government, the project received a grant to partially finance biogas education in the country and the establishment of a testing laboratory.

These biogas plants will be operational by the 2H2021.

Nationwide rollout of clean energy solutions

Beyond Dole, METPower will deliver in its mission of developing a nationwide network of biogas plants, further contributing to the country's targets under the Paris Agreement and improving the quality of life of every Filipino.

METPower is mentioned as a wholly-owned subsidiary of Metro Pacific Investments Corporation.



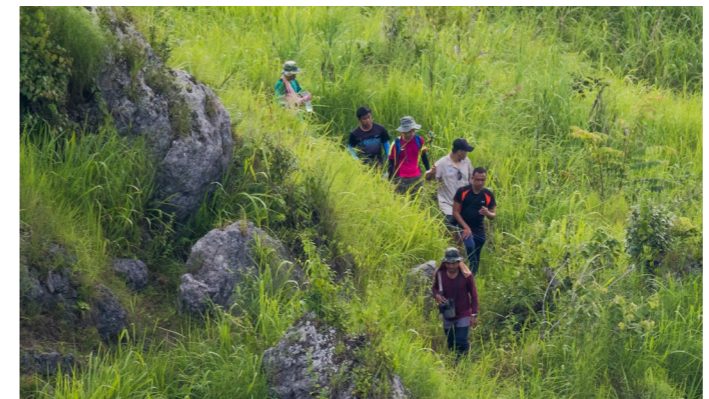
Shell Philippines Exploration B.V. recognized as PH champion of sustainability

Shell Philippines Exploration B.V. (SPEX)

During the recent Europa Awards, Shell Philippines Exploration B.V. (SPEX), was recognized by the European Chamber of Commerce of the Philippines (ECCP) as a champion of sustainability under the Clean and Efficient Energy Category. This award is given to the company who had best incorporated the use of clean, efficient energy practices in its day-to-day operations while aiding the government thrust to reduce the country's greenhouse gas emissions by 70% by 2030.

The Malampaya Deepwater Gas-to-Power Project (Malampaya), operated by SPEX, initiated the birth of the Philippine natural gas industry, becoming a symbol of the Philippines' journey towards energy self-sufficiency. Malampaya provides up to 30% of Luzon's energy requirements, therefore reducing oil imports. One of the most successful public-private partnerships in the country, Malampaya has generated over US\$B12 of revenues for the government.

SPEX's social arms - the Pilipinas Shell Foundation Inc. (PSFI), Malampaya Foundation Inc. (MFI), and Mindoro Biodiversity Conservation Inc. (MBCFI) - have positively impacted many communities in the Philippines. The Access to Energy (A2E) program brings power to remote communities in Northern Palawan through renewable energy systems. Shell's Palawan Eco Agro Park has developed sustainable farming to El Nido.



Led by MBCFI, the 600-sqm Mindoro Biodiversity Conservation Center (MBCC) is currently being constructed in Puerto Galera, Occidental Mindoro to serve as a physical embodiment of sustainability that benefits both present and future generations. Malampaya's Bridging Employment through Skills Training (BEST) program provided vocational skill training to 1,600 unemployed individuals and out-of-school youths from Palawan, Mindoro, Subic, and Batangas.

All these campaigns are a testament to the innovative spirit of SPEX, an energy company that continues to power the country and its people towards progress.



Scalpel or Hammer: Analyzing the two opposing approaches to addressing the Philippine Marine Litter Problem

Business For Sustainable Development

The problem at hand

Around half of plastics created are used in single-use packaging.¹ Plastic is widely used due to its ability to protect products and ensure product quality at very low material weight and cost. This allows products to reach any market, including low-income segments. This low weight and value, however, makes it difficult to manage plastic after post-consumer use. Plastics leak to nature when they are difficult to recover due to their low weight and/or do not command a good price in the recycling value chain.

Jambeck et al. ranked the Philippines third globally in total amount of mismanaged plastic waste in 2010 with 750 thousand tons.² The World Bank found that just a quarter of plastics are recycled in the Philippines. They also estimate that US\$790 million to US\$890 million of material value is lost annually when single-use plastics are discarded rather than recovered and recycled - a huge untapped opportunity to create economic value.³

So how do we address this problem? Do we use a hammer and simply ban all single-use plastics, shifting to compostable alternatives that are also single-use? Or do we use a scalpel to dissect the barriers to circularity and mandate producers to manage their plastic footprint through packaging redesign and Extended Producer Responsibility (EPR)?

This piece unpacks the implications of solving the problem with either a Hammer or a Scalpel. The following tables outline the most likely scenario of either approach and compare their respective economic, environmental, and social implications.

We make the case that both approaches cannot co-exist without compromising the other, especially if the phase-out of single-use plastics covers most packaging materials. The viability of a circular economy relies on plastic that can be used again in some form post-consumer. A shift to compostable alternatives, which are designed to degrade after single-use, will render current and future investments in recycling and other circular economy models useless.

Likely Scenario: Hammer Vs. Scalpel

Steps in the Value Chain	Hammer: Phase-out of Single-use Plastics	Scalpel: Circular Economy - Reduce, Recover, Use as Resource
Packaging Shifts	Most flexible packaging (sachets and films) banned and replaced with compostable plastics such as PLA and PHA ⁴	Redesign for better recyclability and circularity by shifting to more homogenous packaging structures
Product Delivery	Reduce through refill models viable Lack of compostables with similar barrier properties to petroleum-derived plastics may mean shorter shelf-life and loss of product value ⁵ . This may mean an added risk of contamination or product spoilage.	Reduce through refill models viable Current product shelf life is maintained

1 "Beat Plastic Pollution." UNEP, www.unep.org/interactive/beat-plastic-pollution.
 2 Jambeck, J. R., et al. "Plastic Waste Inputs from Land into the Ocean." *Science*, vol. 347, no. 6223, 2015, pp. 768-71. Crossref, doi:10.1126/science.1260352.
 3 "World Bank Group. 2021. Market Study for the Philippines : Plastics Circularity Opportunities and Barriers. East Asia and Pacific Region Marine Plastics Series;. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/35295> License: CC BY 3.0 IGO."
 4 "What Types of Bioplastics Do Exist and What Properties Do They Have?" European Bioplastics, www.european-bioplastics.org/faq-items/what-types-of-bioplastics-do-exist-and-what-properties-do-they-have.
 5 "EPR Scheme Assessment for Plastic Packaging Waste in the Philippines." WWF, wwf.org.ph/wp-content/uploads/2020/12/WWF_REPORT_EPR_Philippines_2020.pdf.

Recovery	Producers cover the cost of recovery of their packaging under a mandatory EPR	
Waste Processing / Treatment	Public investment and/or increased EPR fees needed to establish industrial composting facilities	EPR fees cover just the cost of recovery, increasing the feedstock for recycling and waste processing technologies and attracting private sector investment for further expansion
Final Destination	Compost sold to market but will still be landfilled if market for compost not available	Plastics diverted from landfill and towards value generating pathways and industries such as recycling, fuel conversion, plastic asphalt, and co-processing with cement

Economic Implications: How the approaches add or reduce economic value

Given the likely scenario presented above, here are the economic implications in terms of economic costs and benefits of either approaches at different stages in the value chain.

- Packaging shifts costs.** Hammer approach requires high investment in R&D to improve barrier properties of bioplastics, while scalpel approach only requires tweaks on packaging structure and composition to make them recyclable. Compostables at present are higher in cost and most suppliers are outside the country.⁶
- Shelf life and product access.** Shift to bioplastics as a result of the hammer approach will impact shelf life and subsequently reduce access of far-flung communities to essential products and commodities.
- Recovery costs.** Both approaches require expenditure to recover post-consumer materials. However, the use of bioplastics in circulation can contaminate the conventional plastics which will make recycling more difficult, increasing the cost of recycling, and destroying the quality of the recycling output.
- Waste processing and treatment costs.** Bioplastics require industrial composting which is costly and do not have financially viable returns. This means that either government spends public funds to build and operate the facilities or it is added to the EPR cost of producers. This expenditure is not self-liquidating hence recurring and increasing annual funding allocation is needed to sustain it- a cost center. Scalpel approach offers an array of financially viable technologies to recycle or convert conventional plastics into product or energy. So long as post-consumer wastes are recovered through EPR, the private sector - specifically the recycling industry - will invest in these technologies and operate them sustainably. These models are self-liquidating, generates revenue and adds value to the economy, instead of being a cost center.
- Final destination.** The market for compost is extremely low, especially in highly dense cities. This is why composting of biowaste remains not financially viable and landfills need to be built to absorb this waste generation. Most landfills are already becoming full and land needed for landfills are scarce. In the hammer approach, there will be more compostable wastes that need to be landfilled, which will burden the LGUs, on top of industrial composting cost. In scalpel approach, final destination is no longer needed as the products are sold in the market.

6 Interview with Packaging specialists at Nestle Philippines.

A detailed comparison is presented below:

Steps in the Value Chain	Hammer: Phase-out of Single-use Plastics	Scalpel: Circular Economy - Reduce, Recover, Use as Resource
Packaging Shifts	Higher material cost due to lack of compostables production at scale ⁷ Productivity of food sector impacted as agricultural land is shifted away from food cultivation towards plastic feedstock growth	Redesign packaging for circularity more cost-effective as it uses existing petroleum-derived plastics that are already produced at scale
Product Delivery	Shelf-life reduction may cause product spoilage and loss, and hinder ability for products to reach far-flung communities	No change
Recovery	Cost of recovery expected to be similar for compostables and petroleum-derived plastics since they are relatively of the same weight Compostables will have to be collected with other biodegradable waste and sorted out of recyclables to prevent contamination and hinder recycling and other waste processing technologies ⁸	
Waste Processing / Treatment	Industrial composting must maintain specific temperature, oxygen, moisture, and microorganism conditions, resulting in significant operating costs ⁹ Difficult for industrial composting to generate returns due to lack of viable compost markets and inability to compete with chemical fertilizers ¹⁰	Recycling and other circular economy models are profitable if recovery of feedstock is paid for by the producers, this will attract private sector investment to spur expansion and will be value-adding to the economy
Final Destination	In the absence of a viable compost market, this approach will further cement the demand for landfills which are cost-centers paid for by public funds	Circular models add value to the economy as products and generated energy are sold to the market. These can be taxed to generate revenue for the government. Fuel conversion and co-processing reduces dependence on importation of fuels or coal. Diesel generated from the conversion of waste can be sold cheaper than commercial diesel and generate savings for its users. ¹¹ Asphalt roads using plastics can be more durable and extend the life of infrastructure, ¹² saving government spending on repairs.

Environmental Implications: How the approaches reduce or cause more harm to nature

Both approaches are aimed at addressing an environmental problem - marine litter. In the course of its execution there will be resultant environmental impacts that can be created. For example, the shift in compostable will impact water availability, use of land and chemicals, and even food security to produce bioplastics feedstock. Scalpel approach also needs to consider energy use in recycling and also potential need to wash some recyclables. Though environmental impacts of recycling are much easier to control and manage because they are in the confines of a recycling facility and they are done within a financially viable business model.

In case of waste leakage both compostable and conventional plastics will still harm the environment. Compostable plastics will not necessarily degrade in nature, and if they do they still contribute to organic pollution to waterways.

Steps in the Value Chain	Hammer: Phase-out of Single-use Plastics	Scalpel: Circular Economy - Reduce, Recover, Use as Resource
Packaging Shifts	Compostable plastics like PLA are made from starchy-based materials like corn, cassava, or sugarcane. This has impacts on land use change as land is shifted towards PLA feedstock growth, and may compete for land traditionally used for food production. Agriculture also has water use and chemical pollution impacts. ¹³ GHG emissions come from energy use in manufacturing.	Plastics are by-products of petroleum production. It's production-level GHG emissions is limited as most of it is attributed to the production of other petroleum products. ¹⁴ GHG Emissions come from energy use in manufacturing.
Recovery	Leakage to nature will occur if EPR is not fully enforced. Most compostable plastics still do not biodegrade in nature. Those that do biodegrade can still contribute to pollution in the form of organic materials. In some cases, compostable plastics degrade but not completely turning into microplastics.	Leakage to nature will occur if EPR is not fully enforced Compostables must be sorted out of recyclables otherwise recycling and other waste processing technologies will not be able to receive them as feedstock, resulting in landfilling and leakage
Waste Processing / Treatment	Composting is a closed carbon loop as it releases CO ₂ that was originally removed from the atmosphere when growing the feedstock ¹⁵	Mechanical recycling has GHG emissions from energy used to melt and mold plastics at high temperatures and pressures. Co-processing and fuel conversion into diesel will have GHG emissions. However, they will not cause additional emissions from the business-as-usual scenario if they are used to displace coal or commercial diesel. Using plastics to displace some use of coal in co-processing will generate slightly less GHG emissions than using 100% coal.
Final Destination	If compost markets are unavailable, compost must be landfilled to avoid run-off and organic pollution to water bodies	No further environmental impacts except for product use and post-use management of recycled products

7 Ciriminna, Rosaria, and Mario Pagliaro. "Biodegradable and Compostable Plastics: A Critical Perspective on the Dawn of Their Global Adoption." *ChemistryOpen*, vol. 9, no. 1, 2019, pp. 8-13. Crossref, doi:10.1002/open.201900272.

8 Same as 5

9 Same as 5

10 Interview with Waste2Worth Innovations, a waste management company operating in the Philippines

11 Interview with ReconX, a fuel conversion company operating in the Philippines

12 Naghawi, Hana & Alajarmeh, Ramia & Allouzi, Rabab & Alkloub, Amer & Masarwa, Kalid & AL-Quraini, Ahmad & Abu-Sarhan, Mahmoud. (2019). Recycled Plastic Waste Utilization as Asphalt Binder Modifier in Asphalt Concrete Pavement. 12. 566 - 571. 10.5281/zenodo.1317348.

13 Same as 5

14 "Sector by Sector: Where Do Global Greenhouse Gas Emissions Come From?" Our World in Data, ourworldindata.org/ghg-emissions-by-sector.

15 "Composting - an Overview." ScienceDirect, www.sciencedirect.com/topics/chemistry/composting.

Social Implications: How the approaches impact communities

The Hammer approach creates opportunities for farmers for the production of feedstock if done in an inclusive manner and as opposed to an industrial plantation model. Both models create green jobs though one is dependent on continual funding from the government while the other is dependent on the financial viability of recycling and waste processing technologies. The hammer approach's higher systems cost which needs to be paid for by public funds or EPR funds will divert funds away from more value-adding public services or CSR projects of corporations that benefit communities. Recycled products under Scalpel approach could benefit communities such as access to affordable diesel fuel for fishermen and jeepney drivers.

Steps in the Value Chain	Hammer: Phase-out of Single-use Plastics	Scalpel: Circular Economy - Reduce, Recover, Use as Resource
Packaging Shifts	Food security threatened if food cultivation shifted to plastic feedstock growth ¹⁶ Farmers benefit from production of compostable materials	Economic value in the production of petroleum-derived plastics are concentrated in large companies
Product Delivery	With shorter shelf-life, some products may no longer be accessible to far-flung communities and will drive inequality	Current distribution reach maintained
Recovery	Informal waste collectors can benefit from direct payments from EPR funds for the collection of post-consumer materials	
Waste Processing / Treatment	Composting facilities create green jobs	Recycling and waste processing generates green jobs
Final Destination	Communities can use compost for their backyard gardens	Fuel converted from waste plastics can benefit low-income populations as it is cheaper than its commercial counterpart

In summary:

1. The Hammer Approach prescribes the banning of single-use plastics and will necessitate the phase-in of compostable plastics that are also single-use or used once before being composted and ultimately disposed of. This will increase system costs at the packaging shift and product delivery, waste processing and even final destination. Industrial composting infrastructure will need to be built through public spending, without guaranteed returns due to a present lack of profitable compost markets. With higher costs of waste management, there is an even greater chance of non-recovery and leakage to the environment. When compostable plastics leak to nature, they do not necessarily biodegrade, and for those that do, they can still become organic pollutants to waterways.
2. The Scalpel Approach will also increase cost at the packaging shift level, but only for currently hard to recycle flexible (i.e. soft) plastics. With EPR in place, the biggest barrier to recycling and circularity is addressed as the recovery of all plastic types is made possible. In this scenario, private investment is attracted by increasingly profitable recycling and circular economy models. This will contribute to economic growth and create job opportunities especially for the low-income informal waste sector. It will also create products that add value to the economy such as replacement fuel for coal in cement manufacturing, cheaper diesel fuel, and more durable asphalt roads.
3. Both approaches are effective in preventing leakage to nature. A shift to compostables will result in other environmental impacts due to land use change, water use, chemical pollution, and GHG emissions. Petroleum-derived plastics and recycling also have GHG emissions which needs to be taken into account.
4. From a social dimension, the Hammer approach will impact food security as land for food cultivation is redirected towards plastic feedstock growth. Farmers will benefit from this as there is increased demand for the agricultural products. The Scalpel approach will benefit low-income populations such as fishermen through the use of cheaper fuel converted from waste.

16 Same as 5

Recommendations

The Philippine legislative process should carefully consider the points raised above since choosing one approach over the other has far-reaching implications. As argued in this piece, both approaches cannot co-exist as widespread banning will hinder the setup of a circular economy.

A further quantitative cost-benefit analysis is also recommended to provide a clearer and more empirical picture of the points raised in this piece. The analysis will be able to compare how much more costly the Hammer Approach will be compared to the Scalpel Approach in reaching the same objectives.

Scalpel: A Multi-Pronged Circular Economy Approach

The Scalpel Approach prescribes strategic intervention at each step and for each actor along the waste management value chain:

1. Reduction
 - a. For less sensitive products, producers must explore product distribution and delivery systems that will not rely on use of extensive packaging such as refilling.
2. Design for Circularity
 - a. Producers must shift to more recyclable flexible packaging formats that are more homogeneous, utilize higher proportions of PE and/or PP and avoid materials such as PET and aluminum
 - b. Producers must adopt a proper labelling scheme that clearly designates the suitability of their flexible packaging as feedstock for the various recycling and waste management technologies
3. Support Recovery Processes
 - a. A government-mandated EPR scheme must be enacted that allows for and compels all producers to cover the cost of recovery for their plastic packaging footprint
 - b. Recovery models on the ground composed of local government units, informal waste sector workers, and/or commercial establishments must be strengthened to improve their ability to collect, sort, and consolidate waste for its final destinations
4. Attract Investment into Diversion Pathways
 - a. Policies must be developed that support the viability of the various recycling and waste processing technologies. These include government incentives and policies to support the markets for recycling and circularity products, such as public road standards to allow the use of plastic in asphalt, and vehicle fuel standards to allow the use of fuel converted from waste. When the cost of technologies allow, a policy that will set minimum post-consumer recycled content in packaging will enable scaled investments into chemical recycling.
 - b. Infrastructure must be phased in the short, mid, and long term to steadily grow recycling and waste processing capacity to eventually match the waste generation across the country



Circular Economy Award

Over the years, the 'circular economy' concept has gained traction as producers and consumers recognize that the widely used linear economy model of "take-make-dispose" approach will ultimately result in resource depletion, excessive waste, and environmental degradation. There has been an increased focus on changing the narrative and processes to a 'regenerative and restorative' one — converting waste into productive inputs, reducing pollution and greenhouse gas emissions, and their adverse health and environmental consequences.¹

Moving toward a circular economy would make a significant contribution to environmental preservation and climate change mitigation. On the economic front, studies indicate that a circular economy may generate a USD 4.5 trillion economic potential by eliminating waste and concurrently creating business growth and job opportunities.²

In the Philippine context, waste management and improving recovery rates of materials have become a priority area for the circular economy. Nevertheless, a greater emphasis on circular economy and Sustainable Consumption and Production (SCP) as a strategy towards sustainable

development would be consistent with the Philippine Development Plan (PDP) 2017-2022 and its Strategy Framework to Ensure Ecological Integrity, Clean and Healthy Environment. Nonetheless, the circular economy offers vast opportunities in further improving water and sanitation, generating income in agriculture, as well as food processing and biogas generation to support rural livelihoods. There is much untapped potential to increase the circularity of major material categories.³

With this, the 2021 Europa Awards seeks to award the outstanding participating company that has developed and adopted a circular business model which enables the respective organization to offer and deliver goods and/or services while maintaining ecological and social costs at a minimum. Through the winning company's example of a successful circular business model, the organization has raised awareness and encouraged other companies to shift practices towards sustainable products.

1 P. Schroeder (2020). ADB-NEDA Circular Economy Report Philippines. Retrieved from https://www.adb.org/sites/default/files/project-documents/50158/50158-001-tacr-en_0.pdf.
2 Accenture (2015). The Circular Economy Could Unlock 4.5 Trillion of Economic Growth Finds New Book by Accenture. Retrieved last 18 April 2021 from <https://newsroom.accenture.com/news/the-circular-economy-could-unlock-4-5-trillion-of-economic-growth-finds-new-book-by-accenture.htm>.
3 Ibid.



H&M Philippines H & M Hennes & Mauritz Inc.

We've been working on the sustainability of our business for more than 20 years, and in 2017, we launched an ambitious new strategy to redefine our approach and aspirations. We aim to use our size and scale to lead the change towards circular and climate positive fashion while being a fair and equal company.

Although we have made good progress advancing our sustainability agenda, the last 12 months have further highlighted the importance of sustainability and the need to accelerate this work.

During 2020 we have taken many positive steps. We've embraced new breakthroughs in fabric recycling technology — including the world's first in-store recycling machine, Loop and the first commercial products made from Renewcell's Circulose®. These innovations show that garment recycling can be scalable and commercially viable, bringing us closer to our new goal of using 30 percent recycled materials by 2025. To help us reach this and other circular goals, we're embedding the principles of circularity into the design process and continuing to test and scale pioneering materials - including some made from textile, plastic and agricultural waste. Currently, 65% of our materials used are recycled or sourced in a more sustainably way. Our aim is to reach 100% by 2030.

We stand by our responsible purchasing practices and agreements with suppliers and are in close dialogue with them to support their businesses during these uncertain times. Since 2013 our Fair Living Wage Strategy has guided our approach to understanding and improving workplace dialogue and wage management systems at the factory level, ensuring appropriate purchasing practices and collaboration with other stakeholders in the industry. At the same time, H&M Group's will have an updated wage strategy that takes a localized approach to improving working conditions for the people in our supply chain. We've also had a big focus on advancing our inclusion and diversity work this year — including new partnerships, increased transparency,

and improving representation across the business.

We are continuing to increase transparency around our sustainability plans and performance, as well as the sustainability credentials of our products. H&M was one of the first big brands to make its supplier list public in 2013, and we have worked continuously to share more supplier information ever since. In 2019, the Transparency layer on all H&M and H&M Home products was introduced and in 2020, 7 million customers participated in H&M brand's On Product Transparency pilot with the Higg Index.

We'll continue inspiring and building meaningful relationships with our customers, offering more sustainable products, and scaling circular business models. We'll continue to work with others and build deeper partnerships within and outside our business. Our work alongside close partners such as the Ellen McArthur Foundation, IndustriAll, WWF and the UN Global Compact, to mention a few, is vital to achieve this.



By being open to new possibilities and embracing collaboration and partnerships, H&M Group has the power to change something much bigger than ourselves. We want to achieve sustainable growth that makes a positive difference to people and the planet.



ADVANCING CIRCULAR ECONOMY SOLUTIONS: METPower enables environmental sustainability and value creation for its strategic partners through organic waste management

METPower

METPower is at the forefront of waste management and renewable energy development in the Philippines, providing its strategic partners with long-term circular business model solutions.

Circular Economy through Anaerobic Digestion and Carbon Capture

Utilizing leading technology from Lipp GmbH of Germany, METPower develops industrial scale waste-to-energy plants through anaerobic digestion (AD), a biological process of digesting organic waste in the absence of oxygen and converting this into biogas. As a renewable energy source, biogas can replace fossil fuels not only for power, but also for difficult to decarbonize and electrify sectors.

Through the AD process, METPower also produces nutrient rich organic biofertilizer, supporting circular economy and enhancing the soil's capability for carbon sequestration.

METPower has also invested in a biogas upgrade and CO2 recovery system, capturing the CO2 produced in the AD process and transforming this to food-grade liquid CO2 and dry ice.

Long-term sustainability partnership with Dole Philippines

In 2018, METPower signed a long-term partnership with Dole Philippines (Dole) to develop, build, finance, and operate two biogas plants embedded within Dole's cannery facilities in Surallah and Polomolok, South Cotabato.

By processing Dole's organic waste, METPower will provide Dole with the following:

- Biogas is utilized by Dole's cannery operations as diesel replacement for its boilers to produce steam and as a power supply source

- Liquid CO2 production will supply the entire requirement of Dole's cannery operations
- The liquid and solid organic biofertilizer generated by the biogas plant will be used to replace inorganic fertilizer for the pineapple plantations

Both plants will be operational by 2H2021.



Nationwide rollout of METPower's waste management solution

Beyond Dole, METPower aims to scale and develop a nationwide network of biogas plants, promoting responsible waste management and circular business model solutions for its partner companies and local governments.

METPower is mentioned as a wholly-owned subsidiary of Metro Pacific Investments Corporation.



Nestlé Philippines Leads the Way in Tackling Plastic Waste in the Country

Nestlé Philippines

Nestlé, as the world's largest food and beverage (F&B) manufacturer, is committed to take a leading role in tackling plastic waste, one of the planet's most pressing environmental crises.

The commitment is shared locally by Nestlé Philippines, as a major F&B company in the country which is a top Nestlé market globally.

Nestlé Philippines is heavily invested in efforts to ensure that none of its packaging, including plastics, ends up in landfill, in water, or as litter. By 2025, it aims to make all its packaging 100% recyclable or reusable, and reduce virgin plastic usage by 1/3.

In tackling plastic waste, Nestlé Philippines attained its most significant milestone to date, achieving plastic neutrality in August 2020. It succeeded in collecting and diverting from landfills and oceans the amount of plastic equivalent to what it generated from its plastic packaging, totaling 18,000 metric tons as of March 2021. Nestlé Philippines is the country's first multinational fast-moving consumer goods company to attain plastic neutrality.

Concurrently, Nestlé Philippines is developing more sustainable packaging and became the first food and beverage company to shift to paper straws in the country. The full transition from plastic to paper straws in its locally manufactured ready-to-drink products had eliminated the use of 130 metric tons of plastic straws as of the end of 2020.

Nestlé Philippines also piloted May Balik! Sa Plastik in June 2019 in partnership with Valenzuela City. This project successfully put a tangible value to soft plastic waste, which previously had no worth.

The company has also developed solid waste management education modules which are in use in 10,000 public schools nationwide.

As its next step in leading actions to tackle plastic waste, Nestlé Philippines is currently advocating the establishment of a legislated Extended Producer Responsibility (EPR) scheme for plastic waste in the country. EPR is an environmental policy approach in which the responsibility of a producer for a product is extended to the post-consumer stage of the product's life cycle.





Jobs, Food, Nutrition: The Philippines' Pivot to Agriculture

Ms. Cherrie Atilano

President and Founding Farmer, AGREA Agricultural Systems International, Inc.

COVID - 19 lockdown in the Philippines was imposed during an important season – harvest time. The domino effect was and continues to be a challenge – in economy, and access and availability of nutrient-filled food to eat.

JOBS

7.3 million Filipinos lost their jobs because of the pandemic in 2020. This year, unemployment reached 4.6 million on the month of February. Meanwhile, the Philippine Department of Labor and Employment (DOLE) estimates that 10 million will be jobless – that's 10% of our entire population (our population is currently 109 million). This affected many Filipino families in providing food, water, and shelter for their homes. Moreover, the local government units (LGUs) of our country has been providing cash aids and food packs for Filipino families.

One of the most vulnerable during this pandemic are the urban poor. They are greatly affected by the restricted movement, loss of jobs, and are in dire need for access to healthy food.

FOOD

I remember the day before the announcement, we bought groceries at a supermarket. The food section was close to being empty, every person's cart was full, line to the cashier was unforgiving – people were panic buying.

Few days after lockdown, I received a call for help from a group of Agrarian Reform farmers. These farmers need to sell 15,000 pineapples. Due to the limitations posed by the Enhanced Community Quarantine, these pineapple farmers can't move and sell their produce, and worse – all of it will be thrown away and wasted. They were not the only one having this challenge. Upland and lowland vegetable farmers in Luzon tapped us for the same reason – to move and sell their produce to the consumers.

At the same time, consumers were also challenged in ensuring food supply for their families. Food shelves in supermarkets and stalls in wet markets were scarce to empty, as people were buying more than enough to ensure food in their tables.

Discussing and enabling interventions to improve food availability and food access during a health crisis makes sense. Ensuring that everyone has access to healthy food is as important as protecting ourselves from COVID-19.

NUTRITION

In this health crisis, most of us are concerned with our health – this makes nutrition important in the equation. But how about the vulnerable sectors of society like the urban poor? Those who have lost their jobs, and are worried on where to get their next meals? Is nutrition a priority?

Interventions and Opportunities for Jobs, Food, and Nutrition

COVID-19 pandemic challenged our country's economy (jobs), and people's welfare (food and nutrition). However, I see agriculture to play an important role in helping the Philippines rise up in this health crisis.

I will share these three interventions, with agriculture and food security at the core – the Philippine Government, private sectors, and Filipinos have been doing to bounce back from this health crisis.



1. Providing healthy food packs

The Filipino resilience is known to the world. However, from typhoons, droughts, volcanic eruption, and now in this pandemic – there's a trend of distributing instant and processed food to the people. This has been a norm. But this norm is ironic. These troubled times should be a time where we are strong in body and spirit. Fresh and healthy food should be available and accessible to everyone.

This trend had caught the concern of some leaders in the Philippines during COVID. Food producers are having a hard time to move their healthy food, while consumers only have access to processed and instant food.



Local Government Units have bought fresh and healthy food from the farmers, and distributed these to their constituents, instead of the usual instant and processed food. Private sectors have also taken the lead on this as part of their CSR (corporate social responsibility). They tapped initiatives (like the Move Food Initiative) to prepare thousands of healthy food packs for distribution to urban poor communities.

Healthy food packs should be the trend not just during this health crisis, but in every troubled time it could be relevant and serve its purpose.

2. Return to the Countryside – the Balik Probinsya, Bagong Pag Asa Program (Back to the Province, New Hope)

This program aims to boost countryside development, by addressing Metro Manila's congested urban areas. The program encourages people to return to their home provinces, and the government will help them start anew through incentives on transportation, education, livelihood opportunities, and housing.

Agriculture livelihood is one of the core investment of the program.

3. Growing it urban

The COVID-19 health crises disrupted our access to food. Domestic trade was imbalanced because of the lockdown restrictions: farmers from food-production areas cannot transport their food to their main market – urban areas. This caused food waste from the part of the farmers, and food shortage for urban dwellers, especially the urban poor. The Philippine Department of Agriculture leads the urban gardening strategy. This project provides free vegetable seeds, and training in growing food at urban areas. "With this project, we are empowering urban residents to be self-reliant and enjoy a regular source of nutritious vegetables", Agriculture Secretary William Dar shared in a statement. To date, the Philippine Department of Agriculture has served 721, 196 household for the urban gardening project.

4. AGREA's Move Food Initiative

This online fresh food ordering platform, ensure to move food at both producers and consumers end. This initiative helps farmers who have problem in moving the food to their markets, and ensuring consumers can have access to affordable healthy food.

As of November 30, 2020 – we have moved: 191, 447 kilos of fruits and vegetables; delivered these to 78,177 Filipino families; helped 28, 122 Filipino smallholder farmers, partnered with and donated 4,690 kilos of food to 10 kitchens feeding frontliners.

One of our partner-farmers has been able to pay his loan in a bank, and pay his child's school fees. Other farming associations were grateful for the help of Move Food Initiative in moving their harvest to the market. Our partner-farmers in Mindanao are able to provide good food for their families inspite of the lockdown. These are the some of the experiences of farmers we have assisted. We were able to help and assist them through our fairtrade approach of moving their harvest to the market, and providing logistical support.

I have been working in the agriculture sector for the past 22 years, I can affirm how the sector saves Filipinos everyday. I have high hopes and confidence that the sector can help us rise up from this health crisis. Resilience is good, but our actions will make the difference. Our individual action of growing our own food in our homes, to interventions including more investment in agriculture and fishery, supporting smallholder farmers by buying their products, to providing more agri-inputs to our farmers and fisherfolk will surely enable all of us to have food on our tables, and rise up as a nation.



Written by: Cherrie D. Atilano for GAIN (Global Alliance of Improved Nutrition).

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Philippines Partnership for Sustainable Agriculture

PPSA/GrowAsia

Sustainability and inclusivity are at the heart of everything we do in the Philippines Partnership for Sustainable Agriculture (PPSA). In the past five years, PPSA, a multi-stakeholder partnership platform, has brought together more than 110 organizations and institutions from different sectors towards positively changing the lives of smallholder farmers and delivering impact to the agriculture sector as a whole.

PPSA's Knowledge and Learning workstream captures how sustainable food production and agricultural value chains are achieved through knowledge and best practice exchanges and partnerships on strategic priorities that respond to the pressing issues faced by smallholder farmers.

PPSA conducts various learning sessions that identify technical and practical solutions to food insecurity and mitigate crop pests and animal diseases. At the regional level through Grow Asia, the ASEAN Action Plan on Fall Armyworm Control was also crafted to respond to various issues of corn farmers and other agricultural industries.

Through our Working Groups, PPSA influences companies and organizations in further creating sustainable value chain projects, reaching more than 110,000 smallholder farmers and helping increase their incomes. Through sectoral and policy interventions, PPSA works with the government in crafting development plans such as the Philippine Action Plan for Family Farming, which aims to address the issues of family farmers, and institutionalize program priorities towards sustainable productivity and profitability.

Moving forward, PPSA will continue to partner with various organizations to promote environmentally-sustainable and inclusive value chains, and support the Department of Agriculture in achieving its key strategies on farm consolidation, modernization through digitalization and climate change mitigation, industrialization through strengthening market access, and professionalization through agribusiness management and young engagement.





Sustainable on Food and Nutrition Award

The essence of food to life is obvious. It is one of the most basic necessities of humans and has greatly contributed to our culture and economy. While the correlation between food and health is a well known fact, public awareness on the impact of food production and consumption on our environment and resources leaves a lot to be desired. Food production and consumption pose a significant threat to the environment through land use and degradation, pollution, use of chemical products, and greenhouse gas emissions to mention a few. As such, the road towards achieving sustainable food security and nutrition is marred not only by the depleting natural resources but also by a more volatile and fragile natural environment.

In the case of the Philippines, the country continues to face challenges in its pursuit of attaining food security. Data from the United Nations' Food and Agriculture Organization

showed that about 59 million Filipinos experience moderate to severe lack of access to food, posting the highest number of food insecure people in Southeast Asia from 2017-2019.

Fortunately, technology and innovation are transforming the way food is produced, processed, and consumed to help build a robust and sustainable food system. The Sustainable Food and Nutrition Award is presented to recognize the winning organization's contribution to the enhancement of the Philippine food industry by offering innovative products and services without compromising the needs of the future generation and ultimately contributing towards the institutionalization of the "sustainable food system" concept in the country.



Birch Tree Fortifies Plastic Pollution Reduction Efforts

Century Pacific Food, Inc.

- The milk brand has recently been certified 'Plastic Neutral'.
- New sustainability initiative will support a women micro-entrepreneur led recycling program.

Dairy brand Birch Tree, manufactured by Century Pacific Food, Inc. (CNPF), one of the Philippines' leading food and beverage companies, was recently recognized as a 'Plastic Neutral Brand' by the Plastic Credit Exchange (PCX), cementing its commitment to reducing plastic pollution.

As a certified plastic neutral brand, Birch Tree has balanced the plastic it uses in its packaging by recovering an equal amount of plastic waste and stopping it from polluting the environment. This will also reduce plastic waste flow into landfills and oceans.

"Environmental stewardship is a top priority for Birch Tree. We know that change takes time, but we are willing to rise to the challenge of making our packaging and processes as environmentally-friendly as possible," said Greg Banzon, Chief Operating Officer, CNPF.

The Plastic Neutral Certification involved third-party auditors that allowed PCX to verify Birch Tree's plastic footprint and offsets. This environmental accountability ensures that Birch Tree makes a sustainable impact.

Accounting firm Isla Lipana & Co verified that Birch Tree's annualized plastic footprint from July 1, 2019 to June 30, 2020 has been recovered and processed on behalf of the company. Birch Tree also received Plastic Credits to offset the equivalent volume of plastic waste from January 1, 2019, to December 31, 2020.

Birch Tree's commitment to achieving plastic neutrality led to a partnership with PCX, the world's first global, non-profit, fully integrated plastic offset platform. PCX offers a seamless, traceable, and effective solution to offsetting post-consumer plastics responsibly to ensure they don't wind up in nature. PCX redirects plastic waste to the safest, most environmentally-preferred end destination using only

processes that comply with international industry best practices.

'Aling Tindera' Waste-to-Cash Program

Birch Tree also supports PCX's Aling Tindera Waste-to-Cash program, allowing sari-sari store owners to earn cash from collected post-consumer plastic waste.

The Aling Tindera Waste-to-Cash program also increases income opportunities for sari-sari store owners, most of whom are women. This aligns with Birch Tree's goal to enhance Filipino micro-entrepreneurs' lives.

"We have resolved to consider various options that allow us to have an impact now. Through the Aling Tindera Waste-to-Cash program, we not only provide people an avenue to monetize plastic waste but also educate young generations about the benefits of recycling and co-processing," Banzon said.

One of two containers installed by CNPF in the City of Manila for the collection of post-consumer plastic waste

"By building a strong network of women micro-entrepreneurs, who can be catalysts for sustainability in their respective communities, we hope to achieve the ultimate goal of having no plastic waste in nature," he added.

Working towards a plastic waste-free future

As humanity launches into a collective effort to reduce the devastating impacts caused by plastic pollution, Birch Tree does its part by doing what it can to achieve a waste-free future.

"Globally, 91% of plastic waste goes unrecycled. About 79% of all plastic waste ends up in landfills or nature as litter. Through our partnership with PCX, we are optimistic that we are doing our part to repurpose our plastic wastes while also empowering local communities to help reduce pollution before it can enter the environment," Banzon said.



East-West Seed: Empowering Smallholder Farmers for Food and Nutrition Security

East-West Seed

By 2050, the global population is expected to reach 9 billion. The global demand for food will increase by 70%, as a result of rapid population growth, urbanization and changing diets. Meanwhile, water and land resources will be under heavy pressure.

It is becoming more important now than ever for farmers to grow more with less and to better preserve the scarce natural resources on which the world depends for food and water needs.

Smallholder farmers ensure 85% of the world's food production. They are very important for food security.

Against this context, helping smallholder farmers increase their productivity and income, and their resilience to climate change, is an absolute necessity for food security, nutrition and health.

East-West Seed's mission is to increase the income of smallholder vegetable farmers by developing locally-adapted and high-quality vegetable seeds, and sharing improved agricultural techniques to farmers. The integrated vegetable seed company gives opportunities for farmers to improve their lives, while ensuring more people have more nutritious diets.

Knowledge Transfer is a core element of East-West Seed's business strategy. Through its knowledge transfer programs, East-West Seed promotes profitable and sustainable farming practices among farmers.

East-West Seed believes that sharing knowledge with farmers brings exponential value: it helps farmers become more innovative, it provides them tools to succeed in vegetable production, and in the long run, it improves the availability of safe and nutritious vegetables in the market.

In 2020, East-West Seed reached more than 74,000 Filipino farmers, through a combination of direct training, farmer-to-farmer support, training of trainers, distribution of crop guides, and by using digital media. The company works with government agencies and partners who share the same passion of improving farmers' lives.

Amid the COVID-19 pandemic, East-West Seed worked with the Department of Agriculture-Philippine Rice Research Institute (DA-PhilRice) and local government unit of Lupao in Nueva Ecija to build the capacity of 50 rice farmers on crop diversification, vegetable production, and Good Agricultural Practices to increase and secure their income during the

pandemic.

Through the project, 100 households were also trained on vegetable gardening. In total, the project beneficiaries were able to plant a total of 6.25 hectares of assorted vegetables. Farmers were also linked to institutional buyer Dizon Farms to secure a market for their produce. Because of the success of the project, the country's Agriculture Secretary, William Dar, encouraged all regional agriculture offices in the Philippines to emulate the project.

East-West Seed also invests heavily in the research and development of vegetable seed varieties that are climate-resilient and more resistant to pests and diseases. This results in less use of pesticides which are harmful to the environment, and varieties that have better shelf life and good transportability to reduce spoilage and food loss or wastage.



The company's founder, Simon Groot, received the 2019 World Food Prize, in recognition of the company's transformative role in empowering millions of smallholder farmers worldwide to earn higher incomes through improved vegetable production, and thus benefiting hundreds of millions of consumers with greater access to nutritious vegetables for healthy diets.

East-West Seed was also ranked number 28 in FORTUNE's annual "Change the World" list in recognition of the company's important social and environmental contributions. In 2019, the company was also recognized by "Access to Seeds Index", an independent organization funded by the Bill and Melinda Gates Foundation, as #1 providing the world's smallholder farmers access to quality seeds.



GEA-Kamino Story of Weathering the Pandemic

GEA Westfalia Separator Philippines, Inc.

#KAMINO-man. Dulcet as the recent popular #KamiNaman (meaning "Our turn") rally of a prominent University here in the Philippines as they crawl their way back to the Championship in one of the country's prestigious collegiate sports league.

Kamino's objective of ferreting here in the Philippines the advantage of alternative protein source - microalgae can be considered a major leap to acquire what the other Regions has already achieved by exploring the aforementioned. More so, aiding in pivoting such milestone, can be considered as ne plus ultra of GEA Westfalia Separator Philippines accomplishment for several cognizable reasons.



Kamino being the first

Kamino plant found in the heart of Guimaras Island that is part of Western Visayas region, paving its way to carve and unravel the potential of microalgae in bringing forth a sustainable solution to Aqua Culture Feed in Hatchery. First in the Philippine market during feasibility to handle

Nannochloropsis oculata (Nash), *Chaetoceros muelleri* (Kato) and *Thalassiosira* (Thanos) culture, the company has devoted full-time to study how to culture and harvest these organisms in optimum. A group aiming to enable sustainable support to Aquaculture Hatcheries (fish, crab, or shrimp larvae) and communities through microalgae products and services.

GEA up to the challenge, fulfilling its commitment

Living to its core values, GEA stood out amidst the crisis, by drawing in collective efforts from select individual from the Sales to Admin to Project Execution to Commissioning up to the turn-over of results. It was out of the ordinary knit the grit undertakings because of the unpredictable scenarios brought by the pandemic. But nonetheless, a huge support, from the well-coordinated team of Kamino propelled and spelled the difference how to bring it to success.

Thanos bringing a new hope and exceeding the expectations

Michael Torrillo (a native service engineer), with his unparalleled efforts and through his own equipped expertise in separation, has blown the team with a completely astounding result. With little or no basis limitations going to this project, this spirited young pro gave his all to meet the client expectations for the project bringing in; from 0.3% v/v feed to 0.7% v/v with 90% intact cells in the discharge.

Indeed, this progress adds to the list of wide references of GEA installations particularly in the microalgae applications.

And would always put a smile to everyone who participated - knowing we pulled off the FIRST

By: Alfred Dennis Aguilar



Nestlé Philippines Promotes Inclusive Growth in the Coffee Sector Through the NESCAFÉ Plan

Nestlé Philippines

While local demand for coffee has grown steadily, production has decreased by 3.5% annually in recent years, according to the International Coffee Organization.

Studies have shown that low farm production is attributed to poor farming practices and limited knowledge on coffee technology among local coffee farmers, a shift to other crops by coffee growers, lack of rejuvenation of coffee trees, and limited access to quality planting materials.

Nestlé Philippines, the country's largest buyer of local coffee, is committed to working with other stakeholders in the public and the private sectors, especially farmers and their communities, to grow a more robust and sustainable industry. Through its long-term NESCAFÉ Plan, Nestlé Philippines brings expertise in agronomy, related technologies, and principles of regenerative agriculture to local coffee farmers.



Utilizing its longstanding partnerships, Nestlé is implementing the NESCAFÉ Plan through a value chain

approach to propagate progressive coffee production, including (1) distribution of Department of Agriculture – certified high-yielding Robusta plantlets, (2) knowledge building initiatives to help farmers embrace Good Agricultural Practices (GAP), and (3) a fair and transparent market through the Nestlé Satellite Buying Stations.



Under the NESCAFÉ Plan, Nestlé increased its purchase of green coffee by 27% during the 2019-2020 crop year.

The program's banner initiative called Project Coffee+, which is working closely with 1,500 smallholder farmers in Sultan Kudarat and Bukidnon to transform them into agripreneurs, has resulted in participants' average yields doubling and their incomes tripling, as verified by the Rainforest Alliance.

The NESCAFÉ Plan provides training in sustainable coffee production to an average of 8,500 farmers each year, and has distributed 16 million superior quality Robusta coffee plantlets to farmers.

How Project Silk Is Uplifting The Lives Of Local Farmers

Pilmico Foods Corporation

Agriculture is one of the Philippines' most essential industries, forming a vital part of the nation's food systems and employing 11 million Filipinos. However, despite the sector's contributions, the majority of agricultural workers remain marginalized.

Pilmico Foods Corporation, the agribusiness and food subsidiary of the Aboitiz Group, understands the importance of an empowered agricultural community in achieving a sustainable food system. Through its inclusive agribusiness program, Project Silk, the company provides end-to-end support to community enterprises with the goal of transforming them into efficient, profitable, and growing businesses.

For this program, Pilmico partnered with Mantubugao Agrarian Reform Beneficiaries Farmers Cooperative (MARBFC) in Bukidnon, which connects its members to improved production resources, facilities, and livelihood opportunities.



First, the company sought to augment their income by directly sourcing corn from the coops, to be used in manufacturing animal feeds. Aiming to further uplift their lives sustainably, the program sought to strengthen the

farmers' business acumen by bringing over Industry experts to provide capacity building training sessions.

Seminars in entrepreneurship, business, and financial management were organized in partnership with the Cooperative Development Authority – Region 10, San Isidro College and the People Management Association of the Philippines.

Perhaps one of the most important capabilities the co-op members gained has been the confidence to expand into farm capital, vulcanizing, cassava chips production, and even being an agri-supply center.



Today, the MARBFC has since expanded its yellow corn lots and now supplies corn for Pilmico's plant in Iligan City. Going beyond supporting their own members, the co-op consolidates yield from smallholder farmers who do not enjoy the same capabilities.

The success of Project Silk in Bukidnon has led to similar projects across the country. Under the government's Pilipinas Kontra Gutom program, the company is expanding into more communities and partnering with farmer cooperatives and associations to increase smallholder farmer productivity and income.





COVID-19 is a Call to Arms for Climate-Smart Investing in the Philippines

Mr. Jean-Marc Arbogast

Country Manager for the Philippines, International Finance Corporation (IFC)

The Philippines is battling one of the worst outbreaks of COVID-19 in Asia. The country has the second-highest number of cases and casualties in Southeast Asia before Indonesia, and lockdowns have pushed it into its first recession in three decades. Recent cyclones and the resulting floods – the worst the Philippines has seen in almost half a century – have exacerbated the crisis, especially for poorer segments of the population.

While the Philippines has been deeply affected by the pandemic and some of the worst natural disasters on record have added fresh impetus for calls to accelerate efforts to transition to a more sustainable economy, the crisis offers an opportunity for a green, resilient and inclusive recovery.

This is a huge opportunity for the private sector. IFC forecasts US\$115 billion of climate-smart investment opportunities in the Philippines to 2030, as the country's climate targets, projected growth and infrastructure needs create significant opportunities in renewable energy, green real estate, sustainable infrastructure and cities. New green buildings alone account for US\$57 billion of that figure, while transport, renewable energy and waste could see investment of US\$41 billion, US\$11 billion, and US\$2 billion, respectively.

The blue economy is also an upcoming area of investment potential. The Philippines is the world's third-largest contributor to marine plastic waste, with an estimated 750,000 metric tons of mismanaged plastic entering the ocean every year, equivalent to the combined weight of nearly 8,000 blue whales. The country recycled just 28 percent of key plastic resins in 2019, while 78 percent of the

material value of these resins, equivalent to up to US\$890 million a year, is lost when recyclable-plastic products are discarded rather than recycled into valuable materials because of key structural challenges.

IFC has a long-running and successful track record in sustainable, climate-smart investments in the Philippines. We've financed renewable energy, energy efficiency and climate-change mitigation projects across the country, and we've helped banks issue green bonds and set up risk-sharing facilities to build climate portfolios. EDGE, our green-building standard and certification system that makes it easy and inexpensive to design and certify resource-efficient, zero-carbon buildings, has been used to certify 18 projects including Clark International Airport including over 3,500 residential units, most of which are in the affordable-housing segment. We are currently piloting our Building Resilience Index in the country, a novel tool that could revolutionize the Philippines' real-estate sector, and we're protecting farmers from losses related to typhoons through crop-insurance products. We're also working with banks to increase climate lending to 30 percent of their portfolios and reduce their exposure to coal.

Still, climate change isn't an issue that development finance institutions and the public sector can tackle alone. Pandemic responses by governments have dried up fiscal resources, highlighting the clear need to mobilize private-sector capital to address the issue. In this regard, COVID-19 is a call to arms to the private sector – to help promote a green, resilient, and inclusive recovery for all.





Green and Inclusive Financial Solutions Award

Recent initiatives in financing solutions catalyze efforts to incorporate sustainability into the financial system, such as the mobilization of green and inclusive finance solutions. As such, green financing is a mechanism that helps mitigate environmental and social risks, increases investment on opportunities that safeguards environmental benefit, and promotes greater individual and business accountability.¹ Additionally, financial inclusion provides the society access to a wide range of financial products and services at a reasonable cost, namely - transactions, payments, savings, credit, and insurance.²

It is worth noting that green finance has become more prominent in aligning itself to the commitment for sustainable development. However, it is yet to reach a larger scale with green bond issuance and green infrastructure investment still accounting for less than one percent of total bond issuance and total infrastructure investment respectively.³ Furthermore, the establishment of the Sustainable Development Goals in 2015 emphasizes the

challenge in funding efforts to achieve these goals. Overall, it is estimated that USD 5 to 7 trillion annually is needed to implement the Goals globally. Developing countries are estimated to face an annual investment gap of USD 2.5 trillion in areas such as infrastructure, clean energy, water and sanitation, and agriculture.⁴

Nonetheless, it is worthy to note that significant opportunities in developing green and inclusive finance initiatives remain, with the Philippines being recognized for having best practice in terms of climate ambition.⁵ In this context, the Green and Inclusive Financial Solutions award will be presented to the company that has shown active support to businesses engaging in green projects by promoting and supporting the flow of financial instruments and other related services for the development and implementation of sustainable business models, green investments, and policies promoting sustainability. This can also cover green products within savings, credit, insurance, money transfers, and new digital delivery channels.

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CreditBPO: Helping Businesses Achieve Sustainable Growth

CreditBPO Tech, Inc

Sustainability and financial inclusion have always been at the heart of what we do at CreditBPO. The company was founded to help bridge the financial information gap, help address financial risk, reduce operating expenses, ease workflows, and provide our stakeholders with a roadmap of growth for companies who use our service.

Inclusive Finance

This thrust for financial inclusion, particularly of small enterprises, was affirmed in 2016 when CreditBPO was invited to take part in the First Annual Multi-stakeholder Science Technology and Innovation Forum for the United Nations Sustainable Development Goals at U.N. Headquarters in New York City. CreditBPO was the only Philippine private company in attendance.

Empowering SMEs

Better access to finance was behind the creation of the CreditBPO Rating Report®. Our mission of empowering SMEs through improved access to credit cuts through decades of traditional underwriting processes that have long been roadblocks to achieving a potential additional two points to three points in GDP growth from the SME sector through job creation and economic growth.

We are doubling down on our mission this year with an ongoing collaboration with the Department of Trade and Industry on a pilot that will potentially improve financial literacy among 60,000 small and medium enterprises, their access to credit and overall SME sustainability nationwide

across all industries.

Full Digital Transformation

Since our founding, we have gradually made the shift to a fully digitally transformed business. The pandemic has served to hasten this process. Our workforce is fully remote, reducing our contribution to greenhouse gas emissions and air pollution in general and our dependence on fossil fuels. Operating a virtual office also means a lower carbon footprint.

Financial Technology Solution

We have woven this ability to adapt into the fabric of our solution, which now helps not only SMEs to improve their sustainability, but also financial institutions to shorten credit evaluation processes, corporations to streamline their vendor accreditation and supplier evaluation processes, and government agencies to improve ease of doing business.

Our cloud-based financial technology solution enables our customers to digitize their credit, accreditation, and procurement evaluation processes, away from manual processes that typically involve the use of paper, and complete their digital transformation, thereby lowering their own carbon footprint.



Transition to a Carbon Neutral Economy - ENGIE's transformation Story in Asia Pacific

Engie Services Philippines

ENGIE's purpose ("raison d'être") is to act to accelerate the transition towards a carbon-neutral world, through reduced energy consumption and more environmentally friendly solutions, reconciling economic performance with a positive impact on people and the planet. ENGIE develops its businesses - (i) low CO2 power generation, (ii) global networks, and (iii) customer solutions - around a model based on responsible growth to take on the major challenges of the transition to a low-carbon economy.

ENGIE APAC & China (APACC) has been successfully operating in the region and is of strategic importance to ENGIE's business globally. With nearly 5,000 employees across Asia Pacific covering Australia, China, Indonesia, New Zealand, Malaysia, Mongolia, Singapore, Thailand and The Philippines, and with its Asia Pacific headquarters now in Singapore, ENGIE APAC aims to capitalize on sustainable growth opportunities to help accelerate the region's energy transition.

In 2019, ENGIE APACC announced the completion of the divestment of its 69.1 percent stake in Glow, an independent energy producer that is listed on Thailand's stock exchange. After this disposal, ENGIE Group will no longer have any coal assets in the Asia-Pacific region. Coal will now account for only 6% of the Group's total electricity production capacity, down from 13% at the end of 2015. ENGIE APACC is currently focused on developing renewables in Australia and South East Asia (Malaysia, Philippines, and Indonesia), where we aim to build stronghold positions in all these markets. Our growth strategy is predicated on pursuing growth through organic means, as well as M&A. Across the Asia-Pacific region, ENGIE has an ambition to add >4,000MW of renewable capacity by 2030.

In the pipeline, ENGIE APACC is also partnering Springfield City Group, by investing in a revolutionary zero-carbon plan that will make Springfield a beacon of sustainability and

innovation. The city which is located around 40km south-west of Brisbane in Queensland, Australia with a population of 45,000 is expected to triple within the next 20 years; up to 2.6 million sq metres of mixed-use buildings and more than 22,000 apartments will be built in its central business district. ENGIE APACC will develop of green energy, usage of hydrogen for mobility, better energy efficiency and achieving



net-zero energy by 2038.

In Singapore, ENGIE APACC was also commissioned by JTC Corporation to build, own and operate an underground district cooling system (DCS) for the Punggol Digital District (PDD). Under this agreement, Engie will develop and construct the DCS plant that will be equipped with a cooling capacity of 30,000 refrigeration tons, equivalent to cooling 8,000 four-room apartments. The district cooling facility can provide sustainable and cost-effective air-conditioning to the different amenities in the district, including the business park and retail outlets. Additionally, the DCS will have a centralised four-kilometre piping network connected to customers in the district and is expected to reduce 3,700 tonnes of carbon dioxide emissions per year at full development. It also seeks to achieve up to 30 per cent reduction in energy consumption compared to standard commercial buildings.



A Business Plan for the Planet

The Hongkong and Shanghai Banking Corporation Limited - Philippines

In October last year, HSBC announced an ambitious plan to prioritise financing and investment that supports the transition to a net zero global economy, citing a landmark opportunity to build a thriving, resilient future for society and businesses.

The bank has committed to align its financed emissions - the carbon emissions of its portfolio of customers - to the Paris Agreement goal to achieve net zero by 2050 or sooner. HSBC has both the scale and global reach to play a leading role in guiding its customers through this transition and helping them to achieve this ambitious goal.

Moreover, HSBC has pledged to develop tailored solutions to reduce emissions and will increasingly prioritise financing and investment that contributes to the low carbon transition and will apply a climate lens to financing decisions. HSBC's ambition is to support customers with between USD750bn and USD1 trillion of finance and investment by 2030 to help with their transition.

HSBC's product suite expanded to make sustainable investments/financing available to retail and corporate clients. It was able to deliver landmark deals and raised over \$2 billion worth of green and social bonds for Philippine issuers, launched the Global Equity Climate Change and Global Lower Carbon Equity Funds to a local private banking client, and issued ESG funds to the Premier client base.

"Our commitment to sustainability aims to bring various stakeholders together in building a sustainable economy. As a bank active in the Philippines for more than 145 years, we continue to lay the foundation for more sustainable future through helping our clients to capture key ESG opportunities, be it in green finance, sustainable infrastructure or emission-free energy, as well as other emerging areas," said HSBC Philippines President and CEO, Graham FitzGerald



The Water Sector Reform Agenda

Mr. Christopher A. Ilagan
Chairperson, Philippine Water Partnership

We all know that without water, there is no life. Unfortunately, the water reform agenda is one of those that get the seasonal focus when issues arise, normally when the supply-demand equation goes imbalanced leading to either excess and flooding or lack thereof and drought. It is when water insecurity prevails when water makes the headlines. Unfortunately, one or two news cycles is not enough to really get the gears moving towards lasting reform and once the water headline issue is either resolved or gotten used to, the issue and public clamor for change fizzles down. This explains why for over two decades, the water reform agenda has been beleaguered by a series of false starts.

Now we have a great opportunity to bring the water reform agenda back to center stage. We are not facing a water crisis today, which allows for cooler and rational minds to prevail – something that is needed if we are to intelligently discuss the best ways to improve on our governance and management systems in the water sector towards one that is sustainable and responsive to the needs both today and tomorrow. It is also timely because with just a little over a year remaining in this Administration, there is not much time left to get this reform bill through the legislative mill. Now is the time to take this reform agenda forward and with our voices calling for it as one, we may hopefully see positive movement forward.

If there is one agreement among most stakeholders in the water sector, it is this – the institutional fragmentation with over 30 government agencies governing and managing the country's water sector has been a major impediment to the country's ability to manage its limited water resources in the most optimal and sustainable way. This is opposed to the ideal, globally recognized approach – Integrated Water Resources Management or IWRM, a concept which the Philippine Water Partnership has been espousing since World Water Day 2002 when it was established. In layman's terms, IWRM is an approach which is multi-sectoral and participatory and ensures a holistic view on water resource's proper management across different uses, from ridge-to-reef, striking the balance between economy, society, politics and the environment. What IWRM does is that it recognizes that the same resource – that is, water – has multiple uses in society – agricultural, municipal, industrial, recreational, transportation, cultural, environmental – and thus must take into account all these uses when decisions are made on how to utilize and develop the limited resource. When each user type goes at it their own way, it is inevitable that it will lead to a number of inefficiencies and conflicts between the users.

Thus, it is wonderful to see that a number of legislative proposals look to hinge their governance and management principles in the water sector on the IWRM Framework. Institutionally speaking, many of these proposals seek

to centralize policy making, resource regulation and management over water in a single agency, the Department of Water Resources, which should help in the integration process we seek. To ensure that this approach does not get stuck in mandating national plans and programs devoid of localized realities, the bills also call for the establishment of River Basin Organizations – voluntary, non-government units composed of the multi-sectoral users of river basins to discuss and arrive at common agreements on how their basin's water will be allocated, apportioned and developed. This is where IWRM comes to life. The DWR provides the over-arching framework and enabling policy environment, the River Basin Organizations bring this framework and these policies to life in their specific contexts.

Another crucial element in this entire reform effort is the establishment of a Water Regulatory Commission. Without over-complicating things, this proposed Commission will streamline and rationalize the economic regulation of water and sanitation service providers throughout the country that shall ensure a system that is directed towards achieving universal access to water and sanitation for all Filipinos. It shall do this by setting down clear targets or KPIs that water and sanitation service providers must meet balancing consumer interests on the one hand – including affordability, accessibility, reliability, quality – and commercial viability for the service providers on the other. It shall also lay down clear "rules of the game" for the service providers, inducing more private sector investments needed to achieve our universal access targets by 2030. As a side note, conservative estimates place the cost to achieve universal access to water and sanitation in the Philippines at one trillion pesos, an amount the government alone cannot meet given the many other areas where fiscal spending is needed, especially these days in light of the COVID-19 pandemic.

Today it is but apt we spend some time on figuring out how we can better manage this beautiful, life-giving resource which we often take for granted. This basic element of life is so crucial to our existence and prosperity, and as a species, we have recognized this since our first civilizations, which were often founded along the banks of major rivers. After all, humans are 60% water; our brains and hearts, the organs we associate with our minds and souls, is over 70%. That is how integral water is to us...indeed, taking from the title of that beautiful piano piece by Yiruma, the "River Flows in You" and me and this should be the reason why we should give this resource the homage it deserves.

In closing, inspired by water's almost artistic majesty that has shaped our world, I share with you a personal poem on how vital water is to our existence.

That Speck of Blue

You, that speck of blue, over the horizon of the moon

You breathe and beat brown, white and green too.

Like veins and organs, your rivers and lakes keep you a-beat,

Pulsating while sculpting a tempted voyager's retreat.

Through a telescope I peer and see the infinity you've created

In the plants, animals and people which rule you unabated.

Each one a universe in and of themselves,

From the highest mount to the deepest trenches and shelves.

So what happens if your blue were to suddenly disappear?

Would you lose your white and green too, more of the brown to appear?

A Martian desert should likely come to pass

And all those universes shall have become a glorious past.

This world we live in, as small as it is, is one in a billion, if not in a trillion, quadrillion or even quintillion. And water is its lifeblood that makes all else possible. We only have one world for now, and if we don't take care of our water today, it will not be there to take care of us tomorrow. I thus invite you all to put our water agenda front and center of our hearts and minds, with each of us doing our individual part in preserving it and using it responsibly.



Water Resource Management Award

While water is a finite resource, the demand for water is infinite as it is a basic necessity for human survival. Water scarcity has increasingly become a worldwide problem affecting more than 40% of the global population with water resources depleting at an alarming rate due to the increase of the global population coupled with the impact of climate change. Data from the Asian Development Bank in 2017 showed that global water demand projections are estimated to increase by nearly 55% with the global population increasing to almost 10 billion by 2050. The World Bank also reported that by 2050, the world will require an increase of 60% in agricultural production in order to feed the rising population.

Today, water security continues to be a major and evolving concern for numerous countries, moreso now with the outbreak of the COVID-19 pandemic which further heightened the need to have access to water especially for the purpose of sanitation and hygiene to help contain the spread of the virus. As such, water security plays a crucial role in attaining sustainable growth in both economic and social aspects. The Integrated Water Resources Management (IWRM) is an internationally recognized framework used to guide countries in their journey towards water security

and is based on the idea that water issues should not be considered in isolation but should be approached in a more holistic manner due to the interdependency of the uses of finite water resources. IWRM is defined by the Global Water Partnership as "a process which promotes the co-ordinated development and management of water, land and related resources, to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems"

Water Resource Management is defined by the World Bank as the "process of planning, developing, and managing water resources, in terms of both water quantity and quality, across all water uses". Aside from ensuring that adequate water, in terms of quality and quantity, is allocated to sustain the everyday consumption of water, it also seeks to ensure that water-related risks are minimized with the end goal of achieving water security. The Water Resource Management Award is presented to the company that has best demonstrated excellence in utilizing an Integrated Water Resource Management approach in its water resources projects and has shown innovative thinking and application of solutions for wise water management and practices.



Pumping Water Uphill and Changing Lives

Alternative Indigenous Development Foundation Inc.

The Alternative Indigenous Development Foundation, Inc. (AIDFI) is a Bacolod based Social Enterprise which is engaged in designing, manufacturing, and installation of low-cost technologies for basic needs for the poor since it was founded in 1992.



the most pressing and requested. There are thousands of upland villages which are waterless and where people need to fetch their water manually from sources below their villages. This limits their consumption often to 40 liters/day/household resulting in so many challenges, especially the women. AIDFI designed a crossbreed model of a ram pump, a device which utilizes the energy contained in falling water to pump a portion of the water running through it to a higher elevation. This without fuel, electricity, or emission of Green House Gasses. AIDFI already installed such water systems using its ram pump in 580 upland villages all over the country, benefitting some 290,000 people for whom lives have completely been changed. That is based on the average of 100 households with 5 family members in 580 villages.

The Vision of AIDFI: A society where technology and development systems exist in harmony with nature and serves as a foundation of growth and sustainable development where people share and live in abundance and happiness and where there is peace, freedom and equity.

For AIDFI it was not just technical solutions but the need to create ownership and control over the systems through sound organizational and technical management. For this reason, the technologies are based on local materials and spare parts, come with training of local villagers and the setup of a water association.

From many visits and integration with the poor in far flung uplands, water for drinking, household and irrigation was



In order for the Philippines to reach Sustainable Development Goal 6 "clean water and sanitation for all", it has to go for the last mile: the upland waterless communities and AIDFI is ready for that.



Strengthening Environmental Sustainability Through Water Stewardship

Coca-Cola Beverages Philippines Inc. (CCBPI)

Water is essential to life, just as it lies at the heart of our business: it is the main component of our beverages. As such, our goal is to return every single drop of water we use in our products to communities and to nature. Our strategies are anchored on Reduce, Reuse, Replenish. In 2019, we achieved an estimated 112% water replenishment through our water savings initiatives and operational efficiencies in our manufacturing sites, as well as through community programs such as AGOS.

REDUCE & REUSE: Responsible water management in our operations

We are committed to efficient and responsible water management throughout our 20 plants. Through our Top 20 water savings initiatives, we have significantly improved our national average for water use efficiency ratio (WUR)—which is the amount of water used per 1 liter of beverage manufactured—from 2.75 liters in 2014 to 2.09 liters in 2020. This translates to a 31% decrease in absolute water consumption in 2020—equivalent to more than 7.96 billion liters of water saved. Our best performing plants in terms of WUR are as follows: Davao del Sur and Misamis Oriental Plants: 1.69 WUR, Bacolod Plant: 1.72, and Cebu Wilkins Plant: 1.74 WUR.

Our water savings initiatives include strengthening systems in three water intensive processes, among others: a) right washing at the right time, b) smart design for optimal bottle washing, c) improving clean-in-place procedures.

Moreover, we reuse recovered water from these processes for maintenance tasks such as, but not limited to, toilet flushing and cleaning our trucks.

REPLENISH: Returning to nature and to communities

A. Wastewater Treatment:

All of Coca-Cola’s manufacturing sites are equipped with state-of-the art wastewater treatment facilities that process used water to a quality that is viable for return to the ecosystem. We are proud that through this, we fully returned close to 23 billion liters of treated water from January 2014 – September 2020.

B. Water access for communities

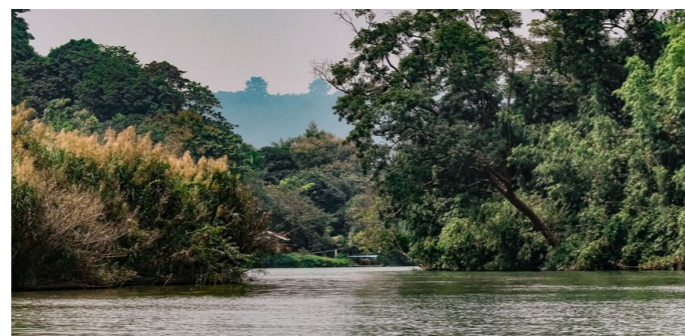
Since 2011, Agos—the Coca-Cola Foundation’s flagship water initiative—has made safe water accessible to water-poor communities, particularly in upland and rural areas, by way of simple technologies such as rainwater harvesting, gravity-fed water systems, and hydraulic ram pumps.

As of 2021, the project has reached around 290,000 beneficiaries in 270 underserved communities.

In light of the COVID-19 pandemic, we aimed to provide communities with access to hygiene facilities such as handwash stations. Working with various NGOs and local government units, handwash facilities are set up in identified public places. We also partnered with Unilever Philippines for a 1-year supply of Lifebuoy soap to be distributed to these handwash stations.

C. Watershed Conservation

In partnership with WWF-Philippines and the Coca-Cola Foundation PH, we allocated PHP 10 million for a five-year program (2016- 2020) aiming to rehabilitate and protect the Ipo Watershed.



In March 2021, the Coca-Cola Foundation Philippines signed a 4-year agreement with USAID-Safe Water and MUAD-Negros to conserve and rehabilitate protect at least 22 natural springs and sustain quality of life among communities around the Bago and Malogo watersheds in Negros Occidental.



Building a Water Sustainable Future for a Greener Republic

How Republic Cement Embeds Water Sustainability in its Value Chain and Empowers Communities through Water Resource Management

Republic Cement Services, Inc.

Water is the single most important resource on the planet, without it life would not exist nor survive. Despite this, many overlook the importance of water sustainability until problems like water shortages or droughts occur.

Recognizing water sustainability as a top priority, Republic Cement has risen to the challenge for sustainable water solutions. To maximize the positive impact on surrounding communities, we espouse a Ridge-to-Reef approach to effectively rehabilitate and manage areas where water is collected naturally in both the upland and lowland (coastal) areas. This ensures that issues related to inland flooding and watershed management affecting village safety, water quality, and coastal infrastructure are considered and mitigated. Part of this approach includes “Tree-Growing” initiatives implemented in upland watersheds. Since 2013, Republic has reforested over 800,000 trees, in different upland communities. More than just seed sowing, seedling growth is closely monitored with the help of various people’s organizations, such as the Calawis Upland Farmers Association, ensuring higher seedling survival rate. In lowland areas, Republic has partnered with various stakeholders, including LGUs and NGOs, for the rehabilitation of mangrove forests nationwide. With this, we are on-track to plant one million trees by the end of 2021.



Republic sites also actively work towards water sustainability through rainwater harvesting. Since 2015, our Batangas plant has been water self-sufficient, sourcing 100% of its domestic and industrial water consumption requirements from its rainwater catchment lakes. The plant operates in a closed loop system, with zero water discharge and in-house water treatment facilities. There are three manmade lakes

that serve as rainwater catchment facilities: the RePubLake, Pozzolan Pond, and East Shale Pond. In total, these collect over 560,000 cubic meters of water.

With this, Republic’s Batangas plant has eliminated its groundwater demand, totaling 328,150 cubic meters per year, leaving scarce groundwater resources for its neighboring communities and farmers. Water reserves are also freely shared with the surrounding communities especially during water shortages. At our Bulacan site, our manmade lagoon provides for all the water requirements of the Bulacan plant, storing 34,500 cubic meters of rainwater. Water from the lagoon is used in a closed-loop setup so that the water can be returned with minimal losses. The lagoon also helps regulate the flow of run-offs, preventing the flooding of the nearby creek during heavy rains. Bulacan plant also has a second water catchment lake holding an additional 60,000 cubic meters of run-off water, which augments the water supplied by the lagoon.



At our Teresa site, the Teresa Quarry Rainwater Catchment holds 235 million cubic meters of water, which would have otherwise caused flooding in the surrounding communities. The water catchment facility protects Teresa town from water deluges during the rainy season. Aside for providing for the plant’s water requirements, the catchment provides the water supply to nearby rice fields, helping ensure 2 bountiful harvests per year.

Looking towards the future, Republic aims to continuously educate its communities on the importance of water sustainability while doing our part to ensure water security for all.

2021 Europa Awards Process

The ECCP will be releasing a call for entries/submissions. Participating companies must fill out an initial entry/nomination form. Additional information may be requested to facilitate the selection process. Submissions are to be provided not later than **30th April 2021, 5:00 PM (GMT+8)**.

1

The ECCP will be reviewing the completeness of the submitted documents, and will be forwarding the entries and documents for the screening and shortlisting process of the technical panel of judges. Panel of technical judges will assess and score the entries using the scoring framework and assessment tools.

2

The official tabulator will be tabulating and totalling the scores to help develop the shortlist and forward the shortlist/finalists for each category, and will be reviewed further for final voting.

3



SGV's Climate Change and Sustainability Services (CCaSS)

SGV's Climate Change and Sustainability Services (CCaSS) Team, a specialized competency within the Assurance Financial Accounting Advisory Services (FAAS) sub-service line, helps clients address their needs in the sustainability, non-financial reporting advisory and assurance, climate change, and environment and health and safety (EHS) aspects of their business towards achieving long-term value and decarbonization. As a multidisciplinary team, CCaSS delivers the technical knowledge and guidance to help organizations assess and respond to environmental, societal and governance (ESG) issues. We support companies in their sustainability reporting journey, ranging from providing guidance in determining material sustainability issues, collecting and assessing relevant information for public disclosure and engaging with stakeholders, to developing a sustainability framework, strategies and plans to report in accordance with internationally recognized sustainability standards.

We offer third-party assurance to support the reliability of non-financial disclosures and provide access to innovative tools that aim to future-proof sustainability disclosures, strategies and initiatives. With a balance of skills and tailored services supported by global methodologies, we help businesses ensure regulatory compliance, build trust and maintain credibility among stakeholders, positioning them to create sustainable long-term value beyond the scope of their financials and operations.

The SGV CCaSS team also assists financial institutions in their journey towards incorporating sustainability in their investment and lending portfolios. We support issuers and investors in issuing green, social and other sustainability bonds to ensure that financing is provided to sustainable assets and operations that will benefit the environment and society. At the same time, the SGV CCaSS team also offers pre-issuance and post-issuance verifications of such bonds.

By providing guidance on mitigating the negative impacts of ESG issues and incorporating opportunities that arise during their sustainability journey, the SGV CCaSS team can help businesses recognize the benefits of understanding and evaluating their broader value impacts and outcomes beyond financial results and create long-term value for the company and its stakeholders.

In line with SGV's purpose in nurturing leaders and enabling businesses for a better Philippines, CCaSS' ambition to create long-term value for all stakeholders and mitigate the risks of disruptive climate change are the Firm's driving force towards the next big transformation. With SGV's increased focus to achieve sustainability and decarbonization in all aspects of the business, CCaSS is at the forefront of innovative solutions to carry out the Firm's sustainability targets and carbon negative ambition.

MPower: Reveling in Eight Years of Service and Sustainability

Celebrating eight fruitful years since its inception in 2013, MPower now serves more than 530 top organizations in the country. MPower is the Local Retail Electricity Supplier of the Philippines' largest distribution utility, MERALCO. Today, it is the leading and most trusted retailer and is committed to providing highly competitive products through its portfolio of strategically located and well-balanced mix of conventional and renewable sources that ensures a stable and reliable supply of energy.

As energy efficiency advocates, its roster of energy experts provides inputs on energy-saving best practices and recently concluded a forum on R.A. 11285 or the Energy Efficiency and Conservation Act. Discussions centered on the law's salient points and how organizations can establish their own Energy Management Systems for better savings and consumption management.

Apart from this, MPower partners enjoy innovative value-added services and end-to-end solutions through its network of affiliates under The Meralco Group such as MServ for energy solutions, Radius for broadband and direct line connectivity, Bayad for online payment solutions, and Spectrum for provision of renewable energy just to name a few.

MPower, together with its partners, takes pride in its flagship Corporate Social Responsibility programs such as the Kinder Classroom Project which built and inaugurated 9 Kinder classrooms and benefitted more than 2,500 students to provide conducive learning environments during their formative years. MPower also holds an annual tree planting program called CommuniTrees where approximately 5,000 native and fruit-bearing seedlings have been planted across Luzon since 2015 to help mitigate climate change. This also supports The Meralco Group's agenda of a sustainable and greener future through nurturing the environment one community at a time.

By way of how MPower strategically sources power, its strong affiliations that tap to a greater network, and how it empowers consumers and sustains communities, it's evident that sustainability has always been at MPower's core. As it journeys beyond eight, MPower is grateful for the formidable partnerships built upon its partners' unwavering trust and support and will continue to uphold empowering more businesses, communities, and many Filipinos.



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