



SDG Investor Map - **Philippines**

Investment Opportunity Areas

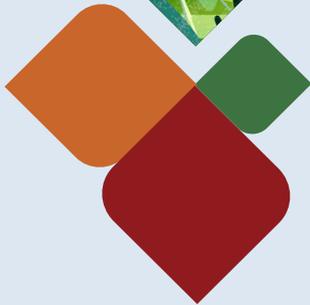


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Foreword



Globally, despite gains achieved in some SDG goals, the overall SDG progress is slow and even in some cases reversed in the past three years. The COVID-19 pandemic -- and other various global crises that we faced -- heavily impacted the collective achievements towards the 17 Global Goals. In the Asia and the Pacific, the latest SDG Progress Report as of 2024 points that the region is 32 years behind schedule in achieving the SDGs. And given its current pace, the region will achieve only one-third of the necessary progress by 2030. Now more than ever, the need to accelerate our efforts through multi-stakeholder action has become even more urgent and necessary.

In the Philippines, while we see progress particularly in reducing poverty, ensuring good health for all, providing quality education, and protecting life below water, challenges remain in moving the needle towards the attainment of the other goals. Intensified efforts from all actors to support government actions, harnessing the critical role of the civil society and the private sector, with the aid of development partners, are imperative in designing a viable blueprint to collectively achieve our Common Agenda and shared ambitions.



To achieve transformational changes in reducing hunger, promoting gender equality, as well as addressing climate problems, greater private sector engagement and investments are seriously needed. The private sector can bring flexibility and speed in delivery, as well as innovative ways of financing the SDGs. It is for this very reason that the United Nations Development Programme (UNDP) in the Philippines led the development of the SDG Investor Maps.

SDG Investor Maps, created by countries across the globe, are market intelligence tools that aim to support the private sector in determining investment themes in emerging markets, which have significant potential to advance the Global Goals. As these Maps are anchored on and aligned with government priorities and national development needs, they serve as useful technology for the private sector, particularly for investors who are looking to invest in the SDGs.

The Philippines' experience in developing its own Map is a symbol of synergistic partnership among the government, the UN, and the private sector in constructing a collaborative instrument for sustainable development. The themes and investment areas identified in the country's Map that support the 17 SDGs reflect the shared vision of the country to promote a holistic and multidimensional approach in achieving its development priorities.

As UNDP Philippines launches the first iteration of the country's SDG Investor Map, it is our fervent hope that the information and analyses that the Map offers will become instrumental in further invigorating the country's dedication towards continued collaboration and efforts in attaining the 2030 Agenda. As it has always been, UNDP will remain steadfast in supporting the government, the private sector, and other stakeholders in its initiatives that aim to realize the Future We Want – a future where no one is left behind.



Selva Ramachandran

Resident Representative, UNDP Philippines

Acknowledgement



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The UNDP Philippines contracted the services of Mr. Rafael Lopa to facilitate the creation of the Map, for his known expertise on private sector engagement and policy, and with his team the Map was successfully produced.

The Philippines' Map was prepared through close collaboration with the government, including the National Economic and Development Authority, and line agencies, such as the Department of Trade and Industry, Department of Education, and Department of Energy, among others. In addition, the Map will not be produced without the support and partnership of all private sector entities who participated in the mapping process.

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Introduction



With only 6 years before the 2030 deadline and having to face several global and national challenges in the last 3 years which eroded progress on the SDGs, the need to heighten efforts to accelerate progress towards the SDGs becomes more urgent. In terms of global SDG attainment, progress stopped and even reversed as of 2023, wherein the COVID-19 pandemic, and other various global crises impacted the countries' achievements towards the 17 SDGs.

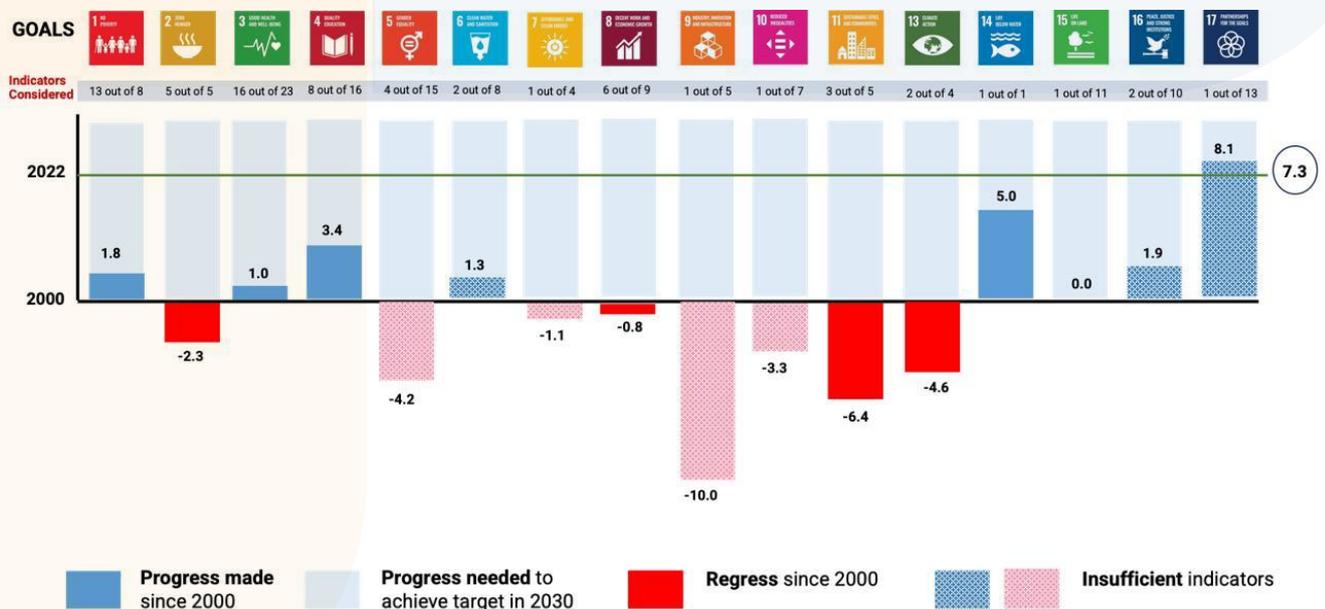
The latest global-level data paints a concerning picture that only 15% of our SDG targets are on track and more than 30% of the targets have experienced no progress or even worsened from the 2015 baseline. This underscores the pressing need for intensified efforts through multistakeholder action to push forward the SDG agenda.

In the case of the Philippines, progress was observed in reducing poverty (SDG 1), promoting good health and wellbeing (SDG 3), providing quality education for all (SDG 4) and protecting life below water (SDG 14).

The average overall progress towards achieving all 17 SDGs in the Asia-Pacific region has increased slowly from 4.4 per cent in 2017 to 14.4 per cent in 2022. However, the total number of years required to achieve the SDG targets in the Asia-Pacific region has increased, which means the region will miss the 2030 target year by several decades based on the 2024 SDG Progress Report.



Figure 1. Philippines' SDG Progress, 2023



Source: 2023 Philippine Pace of Progress, PSA

Role of the Private Sector

Rallying private sector participation and strengthening private and public sector networks for achieving sustainable and inclusive economic growth take on new urgency. National resource mobilization and increased commitments from private investors and enterprises will be needed for recovery, while maintaining progress towards the achievement of the Sustainable Development Goals (SDGs) by 2030. To achieve transformational changes in health, climate, environment, education, agriculture, gender equality, and the eradication of poverty in all its forms, greater private sector engagement and investments are critically needed.

As interest grows among private sector actors to align investment activity with the SDGs, there is a demonstrated need for unifying standards, tools, and services that can be relied upon by investors to support a process of targeting, measuring, and achieving development outcomes.

SDG Investor Maps are market intelligence tools that help the private sector identify investment themes in emerging markets which have significant potential to advance the SDGs that are aligned to government policies and sustainable national development needs. It seeks to address the need for more private capital to be channeled to the developing market, and for the funding to contribute to the SDGs. Private sector investors who are looking for SDG investments can use the SDG Investor Maps to explore investment themes in the knowledge that they are aligned to the identified SDG needs in country and the government's development priorities - thereby strengthening the potential for deep sustainable development.

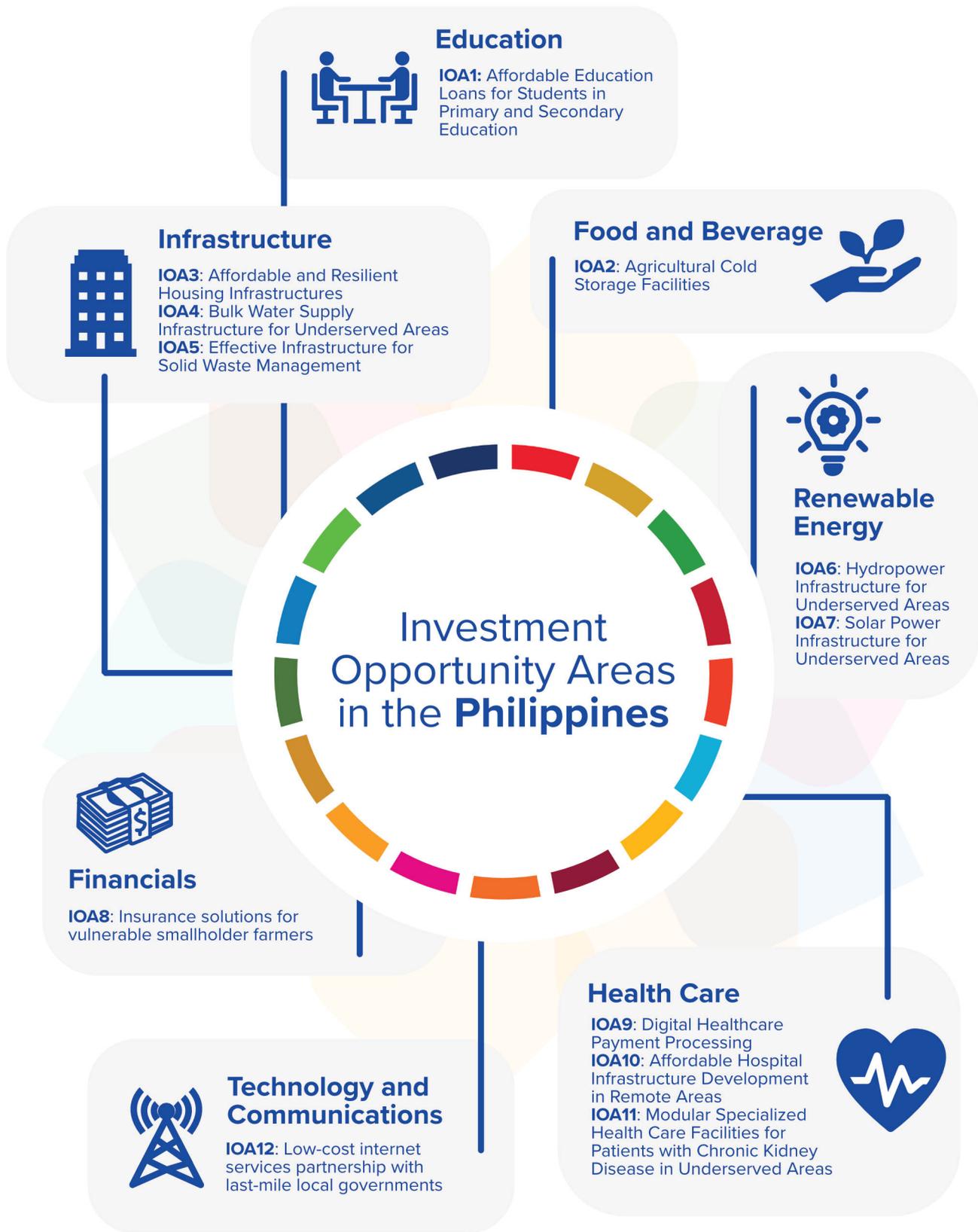
The SDG Investor Map follows an 8-step methodology that allows the filtering down of national priorities to derive Investment Opportunity Areas (IOAs).

Figure 2. SDG Investor Map Methodology



In the case of the Philippines, there are a total of twelve (12) IOAs identified as part of its first iteration of the Map covering seven (7) sectors supporting the 17 SDGs.

Figure 3. Overview of Philippines' Investment Opportunity Areas



7



IOA1: Affordable Education Loans
IOA2: Cold Storage Facilities
IOA3: Housing Infrastructures
IOA4: Bulk Water Supply
IOA5: Solid Waste Management
IOA8: Insurance solutions
IOA12: Low-cost internet services

2



IOA2: Cold Storage Facilities
IOA8: Insurance solutions



IOA5: Solid Waste Management
IOA9: Digital Healthcare Payment
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities

4



IOA1: Affordable Education Loans
IOA12: Low-cost internet services

2



IOA1: Affordable Education Loans
IOA2: Cold Storage Facilities
IOA3: Housing Infrastructures
IOA4: Bulk Water Supply
IOA6: Hydropower Infrastructure
IOA8: Insurance solutions
IOA9: Digital Healthcare Payment
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities
IOA12: Low-cost internet services

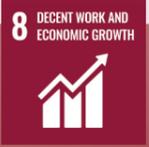
10



IOA4: Bulk Water Supply
IOA5: Solid Waste Management

2

8



IOA1: Affordable Education Loans
IOA2: Cold Storage Facilities
IOA3: Housing Infrastructures
IOA7: Solar Power Infrastructure
IOA8: Insurance solutions
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities
IOA12: Low-cost internet services

8



IOA3: Housing Infrastructures
IOA4: Bulk Water Supply
IOA5: Solid Waste Management
IOA6: Hydropower Infrastructure
IOA7: Solar Power Infrastructure
IOA9: Digital Healthcare Payment
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities

9



IOA2: Cold Storage Facilities
IOA3: Housing Infrastructures
IOA5: Solid Waste Management
IOA6: Hydropower Infrastructure
IOA7: Solar Power Infrastructure
IOA8: Insurance solutions
IOA9: Digital Healthcare Payment
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities



IOA5: Solid Waste Management

1



IOA6: Hydropower Infrastructure
IOA7: Solar Power Infrastructure

2



IOA4: Bulk Water Supply
IOA5: Solid Waste Management
IOA6: Hydropower Infrastructure
IOA7: Solar Power Infrastructure

4



IOA5: Solid Waste Management

1



IOA5: Solid Waste Management

1



IOA2: Cold Storage Facilities
IOA12: Low-cost internet services

2



IOA2: Cold Storage Facilities
IOA3: Housing Infrastructures
IOA5: Solid Waste Management
IOA6: Hydropower Infrastructure
IOA7: Solar Power Infrastructure
IOA8: Insurance solutions
IOA9: Digital Healthcare Payment
IOA10: Hospital Infrastructure
IOA11: Health Care Facilities

1



IOA12: Low-cost internet services

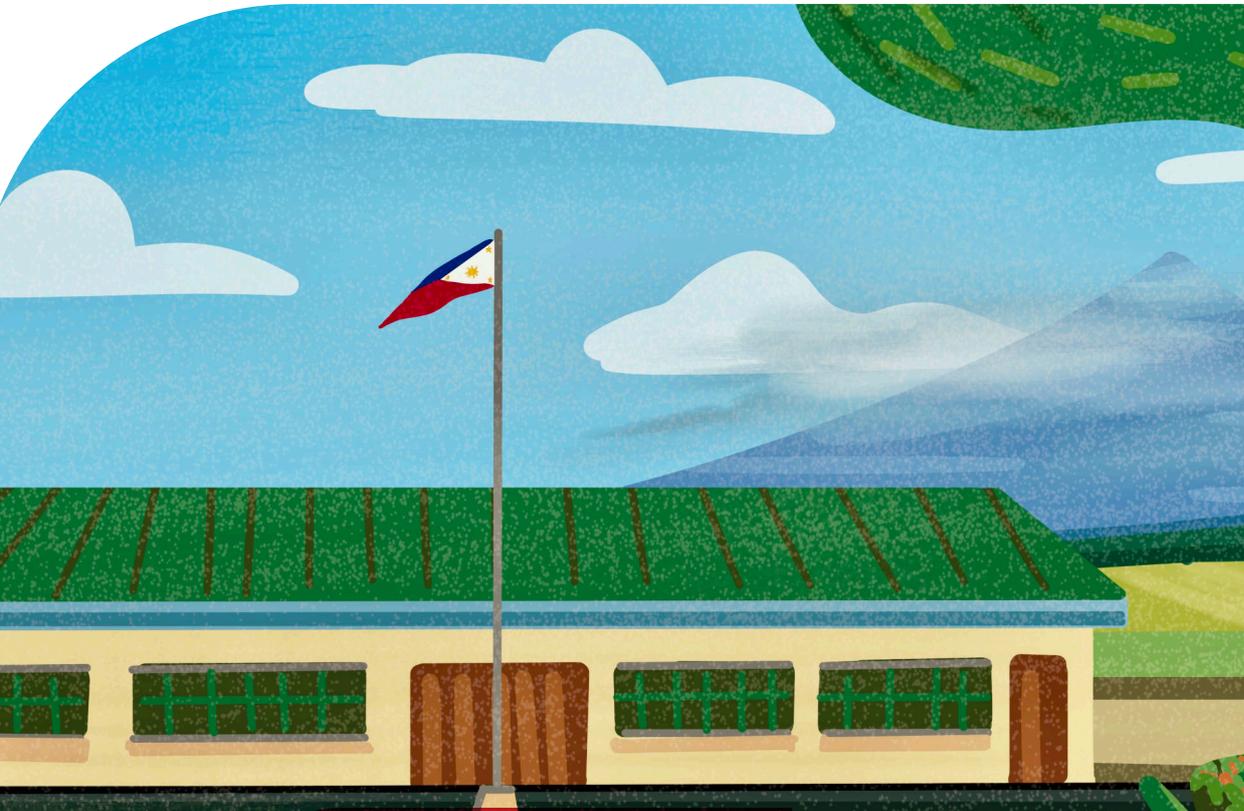


IOA12: Low-cost internet services

1

1. Affordable Education Loans

for Students in Primary and Secondary Education



Sustainable Development Goals:

4 QUALITY EDUCATION



1 NO POVERTY



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



Market Size: >USD 1 billion
Indicative Return: 15% - 20%
Payback Period: Short Term
(less than 5 years)
Investment Size: < USD 500,000

Development Need

Result of decades-long suboptimal investment in education, which stood at only 3.9% of GDP in 2020¹, is alarming. With learning poverty rate at 90.9% as of 2021², the country ranks the lowest in international large-scale assessments, such as the 2018 Programme for International Student Assessment [PISA] and the 2018 Trends in International Mathematics and Science Study [TIMSS]).

Due to the lack of access to educational financing or loans, only 75.7% Filipino students are able to complete two years of senior high school³. Many students are forced to stop schooling because household income is not enough to cover expenses beyond family's basic needs such as food and shelter. This inter-generational cycle of lack of education and means to get out of poverty trap persists. Educational financing can provide the means to break the cycle through financing human capital.

In most low-income Filipino households, the women are compelled to quit school because culture and societal beliefs remain that women should be left at home doing care work. This is reflected in the decreasing number of women completing senior high school from 84.8% in 2018 to 74.6% in 2020⁴.

Business Description

Invest in business models offering short-term financing solutions through short term loans issued to students / households / educational institutions with tenure of less than or equal to one year and interest rates of around 1.5% per month, allowing the borrowers to pay enrollment fee in low-cost EMIs throughout the school year⁵. The loans can be offered to those who applied for the voucher system but are not covered by the said program.

Expected Development Outcome

- Access to low-cost and low-interest rate loans that do not require collateral shall allow learners to continue their education especially in times of unexpected financial shocks experienced by families.
- Students who dropped out during the pandemic due to financial problems may also be encouraged to enroll again given access to alternative affordable financing.

¹NEDA. [Philippine Development Plan 2023 to 2028](#)

²Philippines: [Learning in Brief \(2022\)](#).

³Philippine Statistics Authority [\(2022\) SDG Watch](#)

⁴[PSA Open Statistics](#)

⁵Maybridge Finance. "Opportunity for Private Schools: Discounting of DepEd Subsidy Claims" - Phinma Education. <https://bukas.ph/help-center/phinma-guide-and-faqs/>

Enabling Environment

- Expanded Government Assistance for Students and Teachers in Private Education Act (RA 8545) of 1998: "Sec5: Financial Assistance for tuition for students in private high schools shall be provided by the government through a voucher system"⁶.
- Lending Company Regulations Act (RA 9474) of 2007. "No lending company shall conduct business unless granted authority to operate by SEC"⁷.
- Truth in Lending Act (RA 3765) of 1963. "State to protect its citizens from a lack of awareness of the true cost of credit to the user by assuring a full disclosure of such cost with a view of preventing the uninformed use of credit to the detriment of the national economy"⁸.
- SEC MC No. 03 s. 2022 SECTION 3. Applicable ceiling/s on interest rates and other fees for specific loans offered by LCs, FCs, and their OLPs⁹.
- E.O. No. 150, series of 1994 - Private Education Assistance Committee (PEAC) was granted the express authority to manage and administer contributions, donations, grants, bequests, gifts and/or loans from the government for programs of assistance to private education¹⁰.
- RA 11534: Corporate Recovery and Tax Incentives for Enterprises Act (CREATE): Defines the tax incentives for registered business enterprises investing in the Philippines including a tax of only one percent (1%) on their taxable income for educational businesses¹¹.
- Republic Act No. 11595 liberalized restrictions on foreign direct investments: reduced capital requirements on retail enterprises with foreign entity. Minimum paid-up capital to only USD 500,000, and minimum investment per store of USD 200,000.

Impact Risks

- Social and Economic: Marginalization may also be reinforced by businesses refraining from providing loans for low-income households with poor credit history but need further financial bridging.
 - Low-income schools could incur further costs if the loans structured do not have mitigating features for further delays in government payments.
- Gender inequality and/or marginalization: If financing is not granted the trend of women not finishing senior high school may continue.

⁶ Republic Act 8545. <https://www.officialgazette.gov.ph/1998/02/24/republic-act-no-8545/>

⁷ Lending Company Regulations Act. https://www.sec.gov.ph/wp-content/uploads/2019/11/2007Law_RA9474.pdf

⁸ Securities and Exchange Commission (SEC). https://www.sec.gov.ph/wp-content/uploads/2019/11/1963Law_RA3765.pdf

⁹ SEC (2023). <https://www.sec.gov.ph/mc-financing-lending-companies/mc-no-03-s-2022/#qsc.tab=0>

¹⁰ Private Education Assistance Committee. <https://peac.org.ph/senior-high-school-voucher-program/>

¹¹ Bureau of Internal Revenue - CREATE <https://www.bir.gov.ph/index.php/create.html>

Case Studies

- Maybridge Finance¹², founded in 2008, as a finance institution lending to SMEs in healthcare, education, renewable energy, low-cost housing, and financial technology sectors, pivoted to becoming an education-centric finance institution since 2017 that focuses on bridging financing gaps in the Philippines education sector. Funding for Maybridge projects include Luxembourg-based Backbone Emerging Market Fund.
 - Maybridge Finance also provides financing to small private schools, its suppliers, students, and other stakeholders. It offers a lending program to Philippine private high schools that is complimentary to the Department of Education's (DEPED) Subsidy program.
 - This financing program allows schools to discount up to half of its subsidy claim – which is approximately USD 90,000. It issues loans at a monthly interest rate of 1.5%, i.e. around 19.56% compounded annually, and charges Loan Administration and Processing Fees of 1.75%. Payment of loans is dependent on DepEd's ability to process a subsidy claim.
- Phinma Education Holdings Inc¹³, which started investing in education in 2004, is a private-owned education institution with a network of 10 schools in the country– 9 in the Philippines and 1 in Indonesia. In addition to providing quality education, Phinma Education also offers a financing program to its Philippine students. Tuition fee at Philippine Phinma Schools typically range from USD 800-1,000.
 - Phinma Education's "Bukas" program offers its students a flexible 12-month tuition payment plan, charging monthly interest rates of 1.5%, i.e. ~19.56% compounded annually, with a one-time service fee of 3%. Students may pre-terminate or fully pay these plans before 12 months without incurring additional fees/penalties.

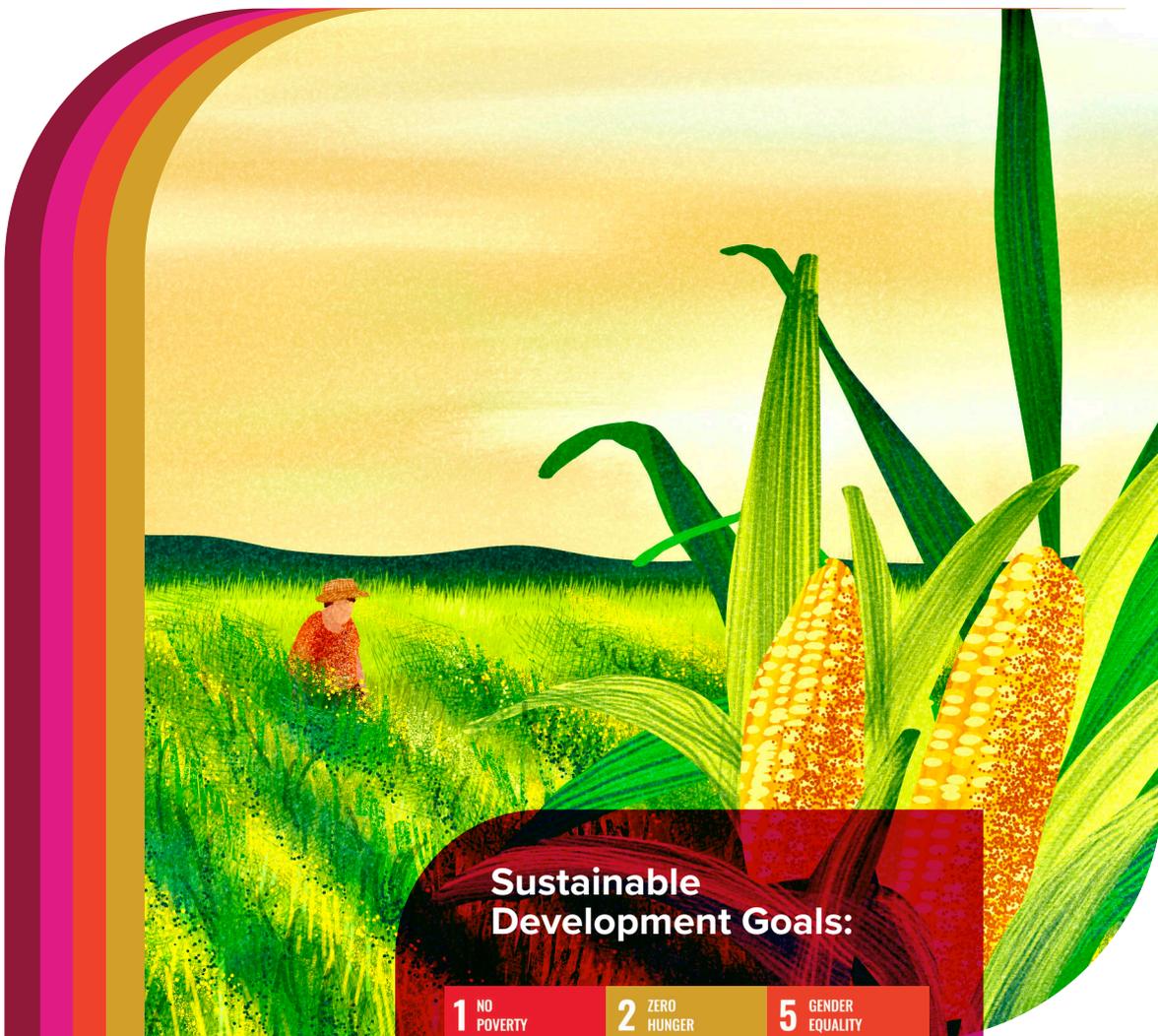


¹² Maybridge Finance. "Opportunity for Private Schools: Discounting of DepEd Subsidy Claims"

¹³ Phinma Education. <https://bukas.ph/help-center/phinma-guide-and-faqs/>

2. Agricultural Cold Storage

Facilities



Sustainable Development Goals:

1 NO POVERTY 	2 ZERO HUNGER 	5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES

Market Size: USD 100 million - USD 1 billion
Indicative Return: 15% - 20%
Payback Period: Long Term (more than 10 years)
Investment Size: > USD 10 million

Development Need

Food security has been a cross-industry development need for the Philippines. Pre-pandemic Surveys (2019) done by the Food and Nutrition Research Institute show that 60% of households worry about food¹⁴. Malnutrition is also attributed to reduced learning capabilities, a developmental aspect critical to the Philippines. Stunting which is characterized by low height-to-age ratio was measured at 28% in 2019 with 5.8% low weight-to-age ratio termed wasting. UNICEF estimates that due to the pandemic, progress in these fronts have regressed further¹⁵.

According to the October 2022 mobile vulnerability analysis and mapping (MVAM), one out of ten households in the Philippines are food insecure¹⁶. Meanwhile, the UN's 2022 State of Food Security and Nutrition in the World report showed around 5.9 million Filipinos were undernourished in the 2020-2022 period, the second highest in Southeast Asia¹⁷. The food crisis is caused by various issues, including the limited infrastructure to link farmers and markets¹⁸.

The 2022 MVAM results indicate that the poorest regions, including BARMM, Region VIII, and XII, are the most food insecure. BARMM, the country's poorest region, records food insecurity above 30%. Agricultural households (25%) are more food insecure than non-agricultural households (9%). Investing in post-harvest infrastructure, like cold storage, will help reduce inequality.

Business Description

Provide affordable and energy-efficient cold storage services for small and medium farmers close to farming areas for perishable agricultural products (meat, dairy, fruits and vegetables). Internal return rates for building agricultural cold storage facilities to provide the needed services are pegged at around 15%-20% based on recent public-private partnership feasibility data.

Expected Development Outcome

- Food hubs can help lessen food prices by reducing the needed layers of traders and resellers in the food supply chain, thereby addressing the issue of food insecurity.
- Storage facilities also provide better income opportunities to farmers who can choose to store their produce rather than selling it at a loss or incurring losses due to spoilage.
- Availability of storage facilities improves the stability of supply of food items, especially during off-production seasons.
- Solutions that stabilize food prices can contribute towards improving food security levels for low-income households which are severely affected by price fluctuations, and thereby improve their families' quality of life.
- Farmers and fisherfolks have the highest poverty incidence, 34.3% and 34% respectively, and solutions that help improve the stability of their income will be productive.

³Food Security Survey 2020

⁴JP INFF. [Development Finance Assessment Report \(2022\)](#)

⁵World Food Programme (2022) <https://www.wfp.org/publications/wfp-philippines-food-security-monitoring-october-2022>

⁶Business World Online (2022) [Nearly 51million Filipinos Face Food Insecurity](#)

⁷Carnegie (2022) [Why Philippines is so Vulnerable to Food Inflation.](#)

Enabling Environment

- RA 8435 (Agriculture and Fisheries Modernization Act of 1997) "Construction of farm-to-market roads shall be a priority investment of the LGUs which shall provide a counterpart of not less than ten percent (10%) of the project cost subject to their IRA level"¹⁹.
- National Agriculture and Fisheries Modernization and Industrialization Plan 2021-2030 presents various plans and frameworks of the government in achieving the sector goal. It comprises of 3 interrelated component plans on commodity, regions and functions²⁰.
- Farm-to-Market Road Network Plan (FMRNP) presents "systematic list of existing and proposed roads detailing their connectivity and links to agri-fishery" key areas²¹.
- The Department of Agriculture issued guidelines the implementation of registration guidelines and the issuance of permit to operate for stakeholders involved in agricultural and fisheries machinery production and trade, to address information asymmetry that restricts fair trade²².
- DOLE, DA and TESDA Joint Memorandum Circular No. 02-2021 details the guidelines and standards on the manpower complement of certified agricultural and fisheries machinery pools and service centers²³.
- RA 10000 (Agri-Agra Reform Credit Act of 2009) mandates all government and private banking institutions to allocate at least 25% of their total loanable funds for agriculture and agrarian reform beneficiaries (ARBs)²⁴.

Impact Risks

- Social and Economic: Inefficient supply chain and logistics will continue to push up prices and worsen food insecurity.
- Environmental: Without transition to low emission energy supply, cold storage will increase electricity consumption, which in turn will increase emissions.
- Gender inequality and/or marginalization risk: If access to facility is difficult, it could hamper those from far-flung areas to maximize impact of investments.

¹⁹ RA 8435. <https://www.officialgazette.gov.ph/1997/12/22/republic-act-no-8435-s-1997/>

²⁰ Department of Agriculture (DA) (2022). [NAFMIP 2021-2030](#).

²¹ DA. <http://bafed.gov.ph/index.php/2022/03/23/http-bafed-gov-ph-wp-admin-post-phppost12278/>

²² DA. <http://bafed.gov.ph/wp-content/uploads/2022/10/PTO-PROCEDURAL-MANUAL.pdf>

²³ DA. [MC02 S. 2021. DOLE-DA-TESDA](#).

²⁴ PPPC Feasibility Study Presentation on the Establishment of Cold Chain Systems Covering Strategic Areas in the Philippines

Case Studies

- ORCA Cold Chain Solutions (ORCA)²⁵, incorporated in 2017, is a subsidiary of ISOC Holdings and operates as a cold chain company that aims to deliver technology-driven cold storage solutions to the Philippine Market. It operates two cold chain facilities in the Philippines, located in the cities of Taguig and Caloocan, with 20,000 and 15,000 pallet, respectively. By the end of 2021, the total funding raised by ORCA was about USD 7.7 million.
- Fresh Depot²⁶, newly founded under the Aboitiz Group, is an innovative cold chain solution company that envisions to provide lessen fresh produce wastage and optimize food supply in the country. Through its physical and digital platforms, it aids farmers to optimize their yield and income using data. As of May 2023, Fresh Depot had two pilot cold storage projects in Buenguet and Nueva Vizcaya.
- In October of 2022, a prototype solar-powered ice plant named Sahaya was constructed by AASC technologies and launched in the Datu Mantil Fish Port²⁷. It produces 600 kg of ice per day and is expected to tackle the key problem of ice storage at the beginning of the supply chain of the fishing community.



²⁵ Orca Cold Chain Solutions. <https://orcacoldchain.com/cold-storage-facilities/>

²⁶ Fresh Depot. <https://www.freshdepot.ph/>

²⁷ PhilAtlas. <https://www.philatlas.com/mindanao/r12/cotabato/pigcawayan/datu-mantil.html>

3. Affordable and Resilient Housing Infrastructure



Sustainable Development Goals:

1 NO POVERTY 	5 GENDER EQUALITY 	8 DECENT WORK AND ECONOMIC GROWTH 
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES 	

Market Size: USD 100 million - USD 1 billion
Indicative Return: 15% - 20%
Payback Period: Medium Term (5 - 10 years)
Investment Size: < USD 500,000

Development Need

Infrastructure needs cut across multiple sectors including housing, transportation, and utilities. Based on a 2015 study by JICA, the annual loss in GDP due to inadequate infrastructure amounts to USD 20 Billion. (4) With the implementation of the "Build Build Build" policy, government spending on infrastructure increased, amounting to around 19.5% of total government spending in 2019. Post-pandemic, inadequacy in key infrastructure across agriculture, transportation and logistics, education and energy persist, thereby prompting continued interest in promoting public-private partnership for infrastructure development²⁸.

The country's path towards acceptable housing is constrained due to several factors: (1) The ratio of unit housing cost to income has risen such that poor households have minimal to negative income left after paying for housing expenditure, while low-income but not poor households are vulnerable to experience the same. (2) there are few low-cost alternatives to homeownership in the formal market while many low-cost housing projects are far from Metro Manila's city centers, which can significantly add to the households' transportation cost; and (3) innovative housing finance is limited²⁹.

In 2015, around 500,000 families out of 23 million households in the Philippines occupied houses and lots without paying rent and without the owner's consent. An estimate of over 6.8 million housing units is required to cover the growing population as of 2022. Data shows that even if an average of 200,000 housing units will be produced annually from 2012, backlog will persist at 6.5 million households in 2030³⁰. Rapid urbanization in the country results in an increase in slum population. In 2010, over 4 million people were estimated to be living in Metro Manila slums. By 2050, this is expected to rise to over 9 million³¹.

Business Description

Invest in B2B/B2C models engaged in building affordable homes for the population in peri-urban informal settlements, especially the areas surrounding Manila or those living in disaster-prone areas in Metro Manila, with focus on sustainability³².

In this model, the local government unit (LGU) plays a lead entrepreneurial (investor-of- first resort) role. Returns are arranged by the LGU and the Department of Socialized Housing and Urban Development, which range from 15% to 20%. To ensure transferability and sustainability of the program, the LGU will charge rental fee comparable to other public housing projects i.e. between USD 14 to 36 per month, lower than the average monthly rental for a comparable private apartment unit, about USD 50 to 70.

²⁸ NEDA. [Philippine Development Plan 2023 to 2028](#)

²⁹ Philippine Institute for Development Studies. 2022. [30% housing price-to-income rule not fit for PH—PIDS study](#).

³⁰ Board of Investments (BOI) Philippines. (n.d.). [Securing the Future of Philippine Industries: Housing. Board of Investments \(BOI\) Philippines](#).

³¹ PSA. [National Annual Poverty Survey Indicator 2019](#).

³² Philippine Statistics Authority. (n.d.) [Statistics for Housing Policy](#).

Expected Development Outcome

- Construction of affordable housing will contribute to the country's goal to provide 6 million decent housing units for the informal settler families, homeless, and underprivileged by 2028.
- The housing program is seen to generate 1.7 M jobs once it goes full blast with construction (9). These livable communities aim to provide equitable, inclusive, and resilient opportunities to improve human well-being and contribute to economic vitality.
- With sufficient and accessible sanitation facilities that come with decent housing, families will be able to improve and take care of their health better. Children may perform well in school because they now have an environment at home conducive for learning.
- In building these secured and decent housing communities, there are opportunities to have shelter initiatives responding to practical needs of the underserved sectors, such as provision of livelihood trainings, access to health clinics and basic utilities.

Enabling Environment

- RA 7279 or the Urban Development and Housing Act of 1992 provides that socialized housing be provided for the underprivileged and the homeless (Article V, Sec. 15).
 - o (Article V, Sec. 20) provides several incentives for private sector participating in socialized housing including ease of doing business, namely: reduction and simplification of qualification and accreditation requirements and simplification of financing procedures, as well as tax exemptions such as capital gains tax or ordinary income tax.
- RA 7644: New Rent Control Law, Section 1 sets the allowable maximum increase of rent for the five-year period.
- RA 11201: Department of Human Settlements and Urban Development Act: Section 5.III.c Implement a single regulatory system that shall govern all activities relative to...housing and urban development projects.
- RA 7160: Local Government Code of 1991: Chapter 2. Section 17. Basic Services and Facilities (of the Local Government Units), (viii) Programs and projects for low-cost housing and other mass dwellings.
- RA 10884: Balanced Housing Development Program Amendments: Subdivision and condominium developers are required to develop 5-15% socialized housing or “socialized condominiums” of their total project area.
- National Housing and Urban Development Sector Plan 2040 is a long-term framework that guides the development of sustainable and resilient cities and communities in the Philippines. It aims to provide decent and affordable housing, improve urban infrastructure, and promote inclusive growth.

-
- Philippine Development Plan 2023-2028: Subchapter 2.3. Establish Livable Communities expresses that by 2028, livable communities are established, and human settlements are upgraded offering equitable, inclusive, resilient, and quality life for all Filipinos.

Impact Risks

- Social: Lack of affordable housing limits property ownership among low-income families. It increases the number of informal settler families, living in hazardous areas.
- Environmental: Informal settlements, situated in non-residential zones, increase pollution and may lead to mismanagement of natural resources.
- Gender inequality/marginalization: Informal settlements further limit disadvantaged groups to access government services, which hinder their social, economic and political development.

Case Studies

- Valenzuela City Socialized Housing:
 - With a total of 13 hectares, the Disiplina Village Ugong and Bignay accommodate around 4,594 informal settler families, clearing up Valenzuela City (a city within the Greater Metro Manila Area) from informal settler families (ISFs) living in danger zones. The floor area of each unit is 28 sq. m. including the loft. The project was initiated and implemented by the City Government with the funding support of the private sector such as the San Miguel Corporation and MERALCO, amounting to around USD 1.5 million.
 - To ensure transferability and sustainability of the program, the “Ordinance Establishing Disiplina Village as the Flagship Socialized Housing Program of Valenzuela City”, Ordinance No. 36, Series of 2011 was enacted by the City Council, that included provisions on basic services and funding being the responsibility of the city government to sustain a very low rental cost of only USD 50 per month, the lowest rate in a public rental housing project in the country.
- Quezon City Socialized Housing:
 - In 2014, Phinma Properties and the Quezon City Local Government partnered to build the Bistekville II Socialized Housing in Barangay Kaligayahan, with 1,101 housing units in the 4.8-ha land (4). Each socialised housing unit is amortised to the customer for around USD 50 per month for a period of 30 years.
 - Between 2013 and 2019, 5,698 families have been provided safe and permanent shelters in Quezon City through social housing initiatives funded by the local city government. The current programme has finalized 37 communities and aims to complete 44 more communities by the end of 2019.

4. Bulk Water Supply

Infrastructure for Underserved Areas



Sustainable Development Goals:

1 NO POVERTY 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	13 CLIMATE ACTION 	

Market Size: USD 100 million - USD 1 billion
Indicative Return: 10% - 15%
Payback Period: Long Term (more than 10 years)
Investment Size: > USD 10 million

Development Need

Based on the 2020 Annual Poverty Indicators Survey of the Philippine Statistics Authority, the main sources of water supply for Filipino families were water piped into their dwelling (54.1%), sourced from protected wells (21.5%), communal sources such as public taps, and developed springs (16.0%), while around 10% of rely on “unsafe sources” such as unprotected wells, or rainwater³³. This Bulk Water Supply Infrastructure for Underserved Areas will provide sanitized water for daily necessities to this group of people, and thereby also reduce the probabilities of diseases that can be communicated via water.

In a survey conducted last December 2023, 17 million out of 25 million households or 67% have access to running water. With the looming El Niño phenomenon, at least 16 provinces in the Philippines, most of which are big palay producers, will be severely hit by its impact³⁴.

Large corporations such as Ayala Corporation and San Miguel identify water security risks to be one of the main issues expected to arise due to climate change impacts. A study conducted by the World Resources Institute ranked the country 57th most likely to be water-stressed by 2040³⁵. The bulk water supply system offers better control of water use and reduce wasting water.

Business Description

Construct and operate Bulk Water Supply Infrastructure within areas recognised by the local government, requiring support and initial studies. Investment maybe through direct investment or project financing with the local government unit. Return is expected through bulk water charge from off-takers. Recent successful partnerships within the space show a return profile of 10% to 15%.

Expected Development Outcome

- Contribute to achieving universal access to safe water and basic sanitation by 2030 in the Philippines. Additionally, improve the quality of access to water sources for families across the income spectrum.
- Reduce cases and mortality rates from water-borne illnesses such as cholera and diarrhea. Mortality for acute bloody diarrhea is at 3 deaths per 100,000 in 2019 (12)

³³ NEDA. [Philippine Development Plan 2023 to 2028](#)

³⁴ Mateo, J. 2023 April 14. [Only 67% of households have access to running water](#) - SWS. PhilStar Global.

³⁵ World Resources Institute. 2015. [Aqueduct Projected Water Stress Country Rankings](#)

Enabling Environment

- RA 6716. An Act Providing for the Construction of Water Wells, Rainwater Collectors, Development of Springs and Rehabilitation of Existing Water Wells in all Barangays in the Philippines declares this national policy to provide adequate potable water supply to each barangay in the country.
- LWUA Board Resolution No. 147, Series of 2009 amended the Guidelines for the Formation of Water Districts in Communities without Existing Water System (9)
- The National Water Resources Board is mandated to administer and enforce provisions of the Water Code of the Philippines which provides guidelines in the proper appropriation and utilization of water sources.
- The regulatory environment for Bulk Water Supply Infrastructures for Underserved Areas in the Philippines includes guidelines from the NWRB, DENR, LWUA, and DPWH.
- Financial and technical support for these projects is provided by the government through organizations such as the NIA and DBP.
- The Philippines' financial environment for bulk water supply infrastructures includes private sector investments, foreign aid grants, and loans from government financial institutions e.g. Development Bank of the Philippines, Land Bank of the Philippines. Tax incentives is given to construction of public utilities in less-developed areas of a total of 100% of its necessary and major waterworks³⁶.

Impact Risks

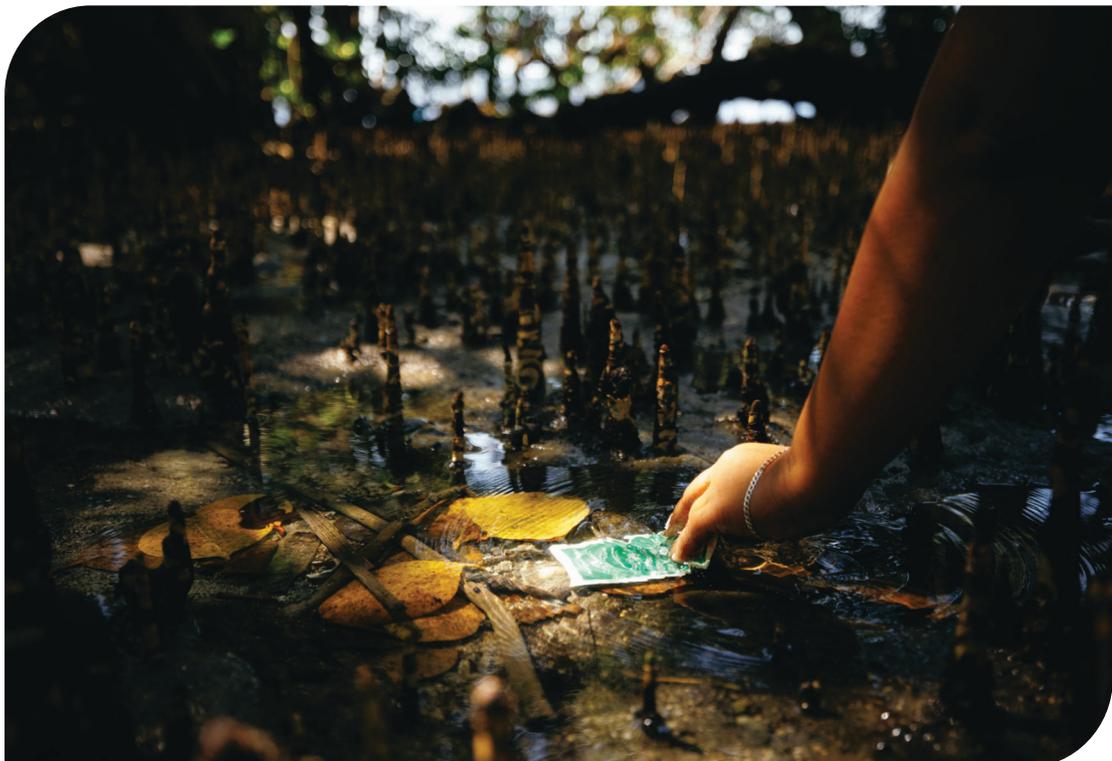
- Environmental: Extraction for bulk supply may increase water scarcity, deplete groundwater, destroy habitats, contaminate water, and make it vulnerable to climate change.
- Social and Economic: Construction may displace communities, sustain inequalities, hinder affordability, disrupt economies, and erode cultural practices tied to traditional water sources.
- Gender inequality/Marginalization: Exclusion in decision-making, burdensome responsibilities, discrimination, violence risks, and inadequate services can perpetuate gender inequalities.

³⁶The Omnibus Investment Code of 1987 (EO 226 as amended)

Case Studies

Multiple Private-Public Partnerships have already been executed for providing water supply solutions for underserved areas. Examples of projects include: Negros Occidental Bulk Water Supply Project and the Baggao Water Supply Project (18) and the Honiara Water Supply and Sanitation Project (by ADB).

- Initiated in April 2015, the Baggao Water Supply Project is an Unsolicited Build-Operate-Transfer (BOT) Proposal for the Long-Term Water Source Development for Metro Manila. It involves the design, financing, construction, testing, operation, and maintenance of a Level III Water Supply System. The indicative cost is roughly USD 3.8 million³⁷.
- The Negros Occidental Bulk Water Supply Project is a solicited bulk water project which is undergoing review for approval for implementation in the province of Negros Occidental. The indicative cost is yet to be determined. The project will cover financing, designing, constructing, operating, and maintaining of new bulk water supply facilities and the water will be sourced to Malogo River Basin³⁸.



³⁷[Indigenous Water, Sanitation and Hygienic \(WaSH\) Practices: The Case of the IP Community in Barangay Lower Panaga, Panabo, Philippines](#)

³⁸[Negros Occidental Bulk Water Supply Project](#). PPPC.

5. Effective Infrastructure for Solid Waste Management



Sustainable Development Goals:

1 NO POVERTY 	3 GOOD HEALTH AND WELL-BEING 	6 CLEAN WATER AND SANITATION
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND

Market Size: USD 50 million - USD 100 million

Indicative Return: Gross Profit Margin > 25%

Payback Period: Medium Term (5 - 10 years)

Investment Size: > USD 10 million

Development Need

With over a 100 million population, the Philippines is now producing over 21 million metric tons of garbage annually³⁹. Despite an existing law mandating segregation of garbage at the barangay (village) level, waste management is still a problem. Trash ends up in water bodies, resulting to diseases, pollution, drainage clogs causing floods, among others⁴⁰.

Proper waste management is crucial for sustainable development in the Philippines. Environmentally, economically, and socially sustainable practices are needed to prevent pollution, conserve natural resources, promote sustainable consumption, and protect public health and safety while reducing social inequities and empowering communities.

The government eyes the establishment of 300 more sanitary landfills nationwide through public-private partnership in the next two years⁴¹.

Business Description

Invest in construction and operation of efficient solid waste management infrastructure, including sewage systems and sanitation centers. Investments can be concentrated in areas with high demand as identified by the local governments.

Expected Development Outcome

- Effective solid waste management practices can reduce the risk of exposure to disease-causing agents and contaminants that can harm public health. Proper waste disposal methods and sanitation practices can prevent the spread of diseases, leading to better overall health outcomes for communities.
- The efficient management of solid waste can generate new business opportunities and jobs in the waste management industry. Recycling and composting programs can create new markets for recycled materials and reduce the cost of waste disposal, leading to potential economic benefits for communities.
- Proper solid waste management practices can lead to a reduction in pollution of air, water, and soil, which can help protect biodiversity and ecosystems from degradation caused by improperly managed waste.

³⁹ Mayuga, J. (2021 January 10). [The garbage conundrum](#). Business Mirror.

⁴⁰ Philippine News Agency. (2022 May 30). [Solid waste segregation remains major challenge in PH: DENR chief](#). Philippine News Agency.

⁴¹ Ibid.

Enabling Environment

- Resolution No. 669: National Solid Waste Management Commission (NSWMC): It created the National Solid Waste Management Commission (NSWMC) in the Philippines to oversee the implementation of the Ecological Solid Waste Management Act and promote sustainable waste management practices.
- RA 11898: Extended Producer Responsibility Act of 2022, Article 2, Sec. 44-D: "...obliged enterprises shall...establish or phase-in EPR programs for plastic packaging to achieve efficient management of plastic packaging waste, reduced production, importation, supply or use of plastic packaging..."; Section 45 (1) (b) states that EPR expenses of obliged enterprises shall be considered as necessary expenses deductible from gross income.
- RA 8749: Philippine Clean Air Act of 1999: It aims to protect public health and the environment by controlling air pollution. It sets standards and guidelines for air quality, regulates emissions from vehicles and industries, and promotes the use of cleaner technologies.
- Department of Environment and Natural Resources Administrative Order No. 2019-21: It aims to provide guidelines for the establishment and operation of materials recovery facilities (MRFs) in local government units (LGUs) as part of the country's solid waste management efforts.
- Department of Environment and Natural Resources Administrative Order No. 2019-09: It establishes guidelines for the rehabilitation and management of Manila Bay, with a focus on reducing pollution and ensuring sustainable development.
- Department of Environment and Natural Resources Administrative Order No. 2018-19: It aims to improve the management of hazardous wastes. It provides guidelines for the environmentally sound handling of hazardous wastes to minimize their negative impact on human health and the environment.

Impact Risks

- Poor waste management infrastructure can result in land and soil contamination, air and water pollution, hazardous waste mishandling, and disruption of local ecosystems, posing risks to public health.
- Inadequate waste management infrastructure can lead to disease outbreaks, health hazards for waste workers, increased healthcare costs, odor and aesthetic concerns, and food safety risks.
- Economic: This can lead to reduced tourism and investment, increased waste management costs, missed economic opportunities, property value decline, and job losses in traditional waste sectors.

-
- Gender Inequality/Marginalization: Limited access to waste services, and gender inequality, negatively impacting the quality of life, access to services, burdening women in waste management.

Case Studies

- General Santos City Sanitary Landfill. Started at the beginning of the 21st Century, the General Santos City Sanitary Landfill Project is a proposed public-private partnership (PPP) project that aims to extend the life of the General Santos City Sanitary Landfill (SLF) and improve its capacity. The project involves the operation and maintenance of the SLF and the establishment and implementation of a waste conversion program. The indicative cost of the project is USD 2 million. East Asia Sheng Tai, a consortium consisting of East Asia Solutions Technology Corporation, Sheng Tai Energy Technology Company, and Dr. Lin Shing-Chou, had submitted an "unsolicited proposal" to manage and operate the sanitary landfill for at least 25 years, with the project costing around USD 1.76 million.
- Quezon City Integrated Solid Waste Management Facility Project. Initiated in 2018, the Quezon City Integrated Solid Waste Management Facility Project is a public-private partnership venture between the local government of Quezon City and a consortium led by Metro Pacific Investments Corp. The project entails the design, financing, construction, operation, and maintenance of a waste treatment facility capable of processing up to 3,000 metric tons of municipal solid waste (MSW) per day and generating 36-megawatt electric (MWe) of renewable power. It aims to provide the QC LGU with a sustainable and cost-efficient waste disposal solution.



6. Hydropower Infrastructure

for Undeserved Areas



Sustainable Development Goals:

5 GENDER EQUALITY 	7 AFFORDABLE AND CLEAN ENERGY 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES 	13 CLIMATE ACTION 	

Market Size: > USD 1 billion
Indicative Return: 10% - 15%
Payback Period: Medium Term (5 - 10 years)
Investment Size: USD 1 million - USD 10 million

Development Need

Malampaya's natural gas fields will be depleted by 2027, leading to importing liquefied natural gas (LNG). Imported gas costs and volatile supplies result in higher power prices⁴².

There are reports of electricity shortage, with 12 predicted yellow alerts in Luzon from March to November 2023, and a proposed P12.536 billion budget cut may result in power outages in 800k+ homes across the country, primarily in Luzon, Visayas, and Mindanao.

Electricity prices in the Philippines remain among the highest in Southeast Asia. In December 2021, the Philippines' residential rate was \$0.16/kWh, second to Singapore (\$0.18/kWh) and higher than Thailand (\$0.10/kWh), Indonesia (\$0.10/kWh), and Malaysia (\$0.05/kWh)⁴³.

Business Description

Build and Operate Renewable Energy Infrastructure, particularly hydropower, in partnership with local governments to cater to remote and underserved areas.

Expected Development Outcome

- The 2021 data shows an increase in population with access to electricity to 95.4%, up from 90.7% in 2016. The administration's priority is to provide electrification to the entire population, including isolated and disadvantaged areas⁴⁴.
- The entry of more players in renewable energy, such as hydropower, will result to increased generation capacity, which consequently contributes to cost reduction in electricity⁴⁵.

⁴²Business World. [As gas reserves wane, Philippines faces rising costs in switch to LNG](#). (2023).

⁴³Ravago, M. (2023). [The cost structure of electricity in the Philippines and other Asian countries: A Comparative Note](#). ACERD.

⁴⁴NEDA. [Philippine Development Plan 2023 to 2028](#)

⁴⁵Ibid.

Enabling Environment

- Executive Order 30, Series of 2017 mandates the establishment of the Energy Investment Coordinating Council (EICC) to oversee and facilitate energy-related investments, including hydropower, in the country. The aim is to ensure a more efficient and streamlined process for energy projects, from planning to implementation.
- The Philippine Energy Plan (PEP) 2020-2040 is the second comprehensive energy blueprint supporting the government's long-term vision known as Ambisyon Natin 2040 which reiterates the energy sector's goal to chart a transformative direction towards attaining a clean energy future.
- The entire RA 11032 or Ease of Doing Business and Efficient Government Service Delivery Act is a law in the Philippines that aims to simplify business procedures and promote efficient government services to attract more investors and boost the country's economy.
- The entire Administrative Order (AO) 23 aims to streamline government processes and reduce bureaucratic red tape by eliminating unnecessary requirements and redundant procedures in government agencies. It aims to promote ease of doing business in the Philippines.
- JMC 2020-01: (1.9) The DILG, in support of the DOE, enjoins all LGUs to implement the directive of the President Duterte on the implementation of energy projects through the issuance of this policy.
- The entire Electric Power Industry Reform Act (EPIRA) of 2001 aims to restructure the power industry in the Philippines by promoting competition, privatizing government-owned utilities, and creating a more efficient and reliable power supply system.
- RA 9513 or the Renewable Energy Act of 2008, Chapter III, Section 6: Renewable Portfolio Standard - All stakeholders in the electric power industry shall contribute to the growth of the renewable energy industry of the country; Section 15(h) prescribes that an RE Developer engaged in missionary electrification shall be entitled to a cash generation-based incentive per kilowatt-hour generated equivalent to 50% of the Universal Charge for power needed to service missionary areas
- The Net Metering Program allows consumers who generate their own electricity, typically through solar panels or wind turbines, to sell excess power back to the grid and receive credits on their bills for the power they provide⁴⁶.

⁴⁶ UNDP. [Development Finance Assessment 2022](#). Philippines

Impact Risks

- Environmental: increased greenhouse gas emissions, ecological disruption, water stress due to construction, land clearance, and high-water resource requirements
- Social and community impact risks include potential relocation and problems with land rights, diseases, and cultural disruption causing social unrest, negative health effects.
- Economic: increased energy costs, job-skill mismatch affecting job creation, economic dependence on a single sector, possibly making poverty and vulnerability to economic shocks worse.
- Gender inequality/marginalization: access disparities, exclusion from decision-making processes, inadequate consideration of gender-specific safety concerns, increasing women's vulnerability.

Case Studies

- San Roque Multi-purpose Hydroelectric Powerplant is a Build-Transfer-and-Operate scheme under the Public-Private Partnership (PPP) Program of the National Government. The project is located in San Manuel and San Nicolas, Pangasinan. The project is under the implementation of the National Power Corporation (NPC) and the private sector partner is the consortium of Marubeni Corporation, Sithe Philippines Holdings, Inc., and Italian-Thai Development Public Company Limited.
- The Bakun A/B and C Hydroelectric Power Plant is a 70 MW run-off-river development, located in the southern part of the Central Cordillera Mountains along the major tributary of Amburayan River. The project cost was USD 83 Million and it was implemented under the Build-Operate-Transfer (BOT) scheme. The project is now operational and is owned and operated by Luzon Hydro Corporation.
- Ifugao Ambangal minihydro power plant in the Philippines is a 200 kW run-of-the-river project that provides clean, renewable electricity to the agricultural community of Kiangon, Ifugao and improves the residents' livelihood by supporting their rice farming practices. The plant generates on average 1,200 MWh per year of reliable and clean electricity. The plant's power sales to the local Ifugao Electric Cooperative (IFELCO), secure around 70,000 USD annually for the conservation fund

7. Solar Power Infrastructure

for Underserved Areas



Sustainable Development Goals:

7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



Market Size: > USD 1 billion
Indicative Return: 10% - 15%
Payback Period: Medium Term
(5 - 10 years)
Investment Size: USD 1 million -
USD 10 million

Development Need

The Philippines consistently have the highest electricity prices compared to relative ASEAN countries⁴⁷. Coupled with this, there are grid challenges that creates congestions, uneven power distribution and stranded electricity that cause power interruptions on some congested areas, but also wasted energy produced because of power production.

Additionally, as of 2021, 5 percent of Filipino households still live without electricity, bereft of the benefits including increased welfare and productivity, education, and improved indoor air quality. Majority of these un-energized households are located in Abra, Albay, Masbate, Basilan, Sulu, Tawi-Tawi, and Lanao Del Sur and are being catered by ailing and problematic electric cooperatives (ECs)⁴⁸.

While data from the Philippine Statistics Authority shows that 95% of families in the Philippines already have access to electricity. The Philippine Development Plan of 2023 to 2028 recognized Philippines still has multiple significant challenges in providing access to electricity. Multiple areas are still not connected to the main grid where concessionaires are mainly operating small off-grid power generators, mostly diesel-based. Additionally, there are challenges in depletion of current sources of energy. As such, the Philippines envisions tripling renewable energy capacity by 2030, requiring an additional 14,900 MW, including from solar power⁴⁹.

Business Description

Build and Operate Solar Energy Infrastructure through public-private partnerships with local and national government agencies to provide off-grid and on-grid solutions in remote areas.

Expected Development Outcome

- The 2021 data shows an increase in population with access to electricity to 95.4%, up from 90.7% in 2016. The administration's priority is to provide electrification to the entire population, including isolated and disadvantaged areas⁵⁰.
- The entry of more players in renewable energy, such as hydropower, will result to increased generation capacity, which consequently contributes to cost reduction in electricity⁵¹.

⁴⁷ NEDA. [Philippine Development Plan 2023 to 2028](#)

⁴⁸ Ibid.

⁴⁹ 5) Department of Energy. (2020). [Philippine Energy Plan 2020-2040](#). Department of Energy.

⁵⁰ NEDA. [Philippine Development Plan 2023 to 2028](#)

⁵¹ Ibid.

Enabling Environment

- Executive Order 30, Series of 2017 mandates the establishment of the Energy Investment Coordinating Council (EICC) to oversee and facilitate energy-related investments, including hydropower, in the country. The aim is to ensure a more efficient and streamlined process for energy projects, from planning to implementation.
- The Philippine Energy Plan (PEP) 2020-2040 is the second comprehensive energy blueprint supporting the government's long-term vision known as Ambisyon Natin 2040 which reiterates the energy sector's goal to chart a transformative direction towards attaining a clean energy future.
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- The entire Electric Power Industry Reform Act (EPIRA) of 2001 aims to restructure the power industry in the Philippines by promoting competition, privatizing government-owned utilities, and creating a more efficient and reliable power supply system.
- RA 9513 or the Renewable Energy Act of 2008, Chapter III, Section 6: Renewable Portfolio Standard - All stakeholders in the electric power industry shall contribute to the growth of the renewable energy industry of the country; Section 15(h) prescribes that an RE Developer engaged in missionary electrification shall be entitled to a cash generation-based incentive per kilowatt-hour generated equivalent to 50% of the Universal Charge for power needed to service missionary areas
- The Net Metering Program allows consumers who generate their own electricity, typically through solar panels or wind turbines, to sell excess power back to the grid and receive credits on their bills for the power they provide⁵².

⁵² UNDP. [Development Finance Assessment 2022](#). Philippines

Impact Risks

- Governance and policy: corruption and lack of transparency impacting fund allocation, regulatory instability, and insufficient accountability leading to community distrust.
- Environmental: increased greenhouse gas emissions, ecological disruption, water stress due to construction, land clearance, and high-water resource requirements
- Social and community: potential relocation and problems with land rights, diseases, and cultural disruption causing social unrest, negative health effects.
- Economic impact risks: increased energy costs, job-skill mismatch affecting job creation, economic dependence on a single sector, possibly making poverty and vulnerability to economic shocks worse.
- Gender inequality/marginalization: access disparities, exclusion from decision-making processes, inadequate consideration of gender-specific safety concerns, increasing women's vulnerability.

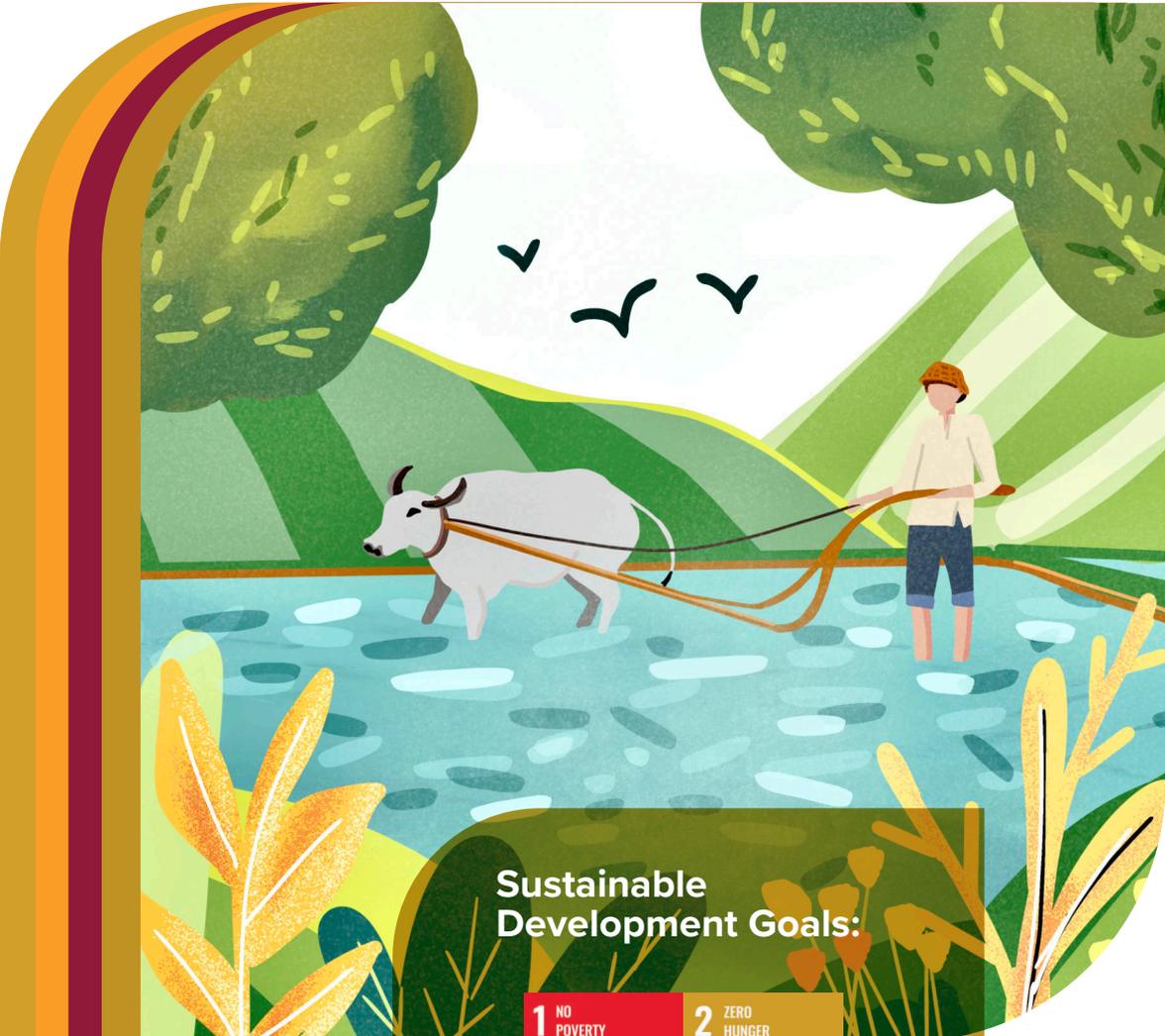
Case Studies

- The SINOSAUR solar project was organized by Philippine National Electrification Administration (NEA) this August, which aims to supply sustainable basic electricity to 3,100 far-flung off-grid households. The project facilitated the government's goal to achieve the “Total National Electrification” target by contributing renewable energy for 25,000 off-grid households nationwide in the Philippines. The project extends and consolidates the leading role of SINOSOAR in the off-grid solar market of the Philippines.
- The Tumingad Hybrid Solar-Diesel Powerplant can produce 7.5 MWp of electricity. Excess solar power are stored in the plants battery while diesel generators are used once all electricity are used up. Costing USD 10M the plant constructed by Sunwest Water & Electricity Co. is one among multiple solar-hybrid off-grid power solutions in Romblon.



8. Insurance Solutions

for Vulnerable Smallholder Farmers



Sustainable Development Goals:

1 NO POVERTY

An icon representing a family of four people: two adults and two children.

2 ZERO HUNGER

An icon representing a bowl of food with steam rising from it.

5 GENDER EQUALITY

An icon representing gender equality: a female symbol with an equals sign.

8 DECENT WORK AND ECONOMIC GROWTH

An icon representing decent work and economic growth: a bar chart with an upward-pointing arrow.

11 SUSTAINABLE CITIES AND COMMUNITIES

An icon representing sustainable cities and communities: a city skyline with several buildings.

Market Size: USD 100 million - USD 1 billion
Indicative Return: 5% - 10%
Payback Period: Short Term (less than 5 years)
Investment Size: USD 500,000 - USD 1 million

Development Need

According to the Banko Sentral ng Pilipinas, around 56% of adults have bank accounts as of 2022, an increase from 29% in 2019 which is mainly driven by electronic banking. However, access to insurance and other financing solutions are still below adequate levels. In 2022, insurance industry in the Philippines contributed only around 1.72 percent to its total gross domestic product⁵³.

Recent research shows a widening gap for lending activities in the agriculture industry, banks usually cite the risk level of default as the main barrier to financing agriculture better. In addition, as of 2021, only 1 in 3 farmers in the country has access to insurance. This phenomenon is known as the agriculture credit gap, the difference between the credit requirements of the priority commodities and the financing supplied by banks. In 2014, the Agriculture Credit Policy Council (ACPC) in the Philippines pegged this gap at around USD 7 billion⁵⁴.

Coupled with the increasing losses brought by the effects of climate change, the agriculture sector and consequently the country's food supply is at risk if no adequate financing and insurance solutions will be placed. In 2021, agricultural damages brought by natural calamities amounted to around USD 450 million⁵⁵. No improvement was seen in January 2022 where damages brought by rains and floods alone totaled to around USD 13 million⁵⁶. Farmers are often not financially protected against these shocks.

Business Description

Invest in insurance solutions (max of 7.5% of daily minimum wage for premium and charges) for low-income and highly exposed smallholder farmers. This model incorporates an efficient claims-processing system, through physical and digital platforms, thereby increasing access, that automatically initiates payouts when predefined index triggers are met. Design and service delivery of insurance products for smallholder farmer can be implemented in partnership with micro-financial service providers.

Expected Development Outcome

- This IOA would help shorten the recovery rate of the agricultural sector after calamities. As a result, there would be an improvement in agricultural productivity contributing to an increase in the country's overall GDP.

⁵³ NEDA. [Philippine Development Plan 2023 to 2028](#)

⁵⁴ Official Gazette. (2013). [The Insurance Code](#).

⁵⁵ Philippine Statistics Authority. (2022). [Compendium of Philippine Environment Statistics: Component 4](#).

⁵⁶ Rivera, D. (2023, January 17). [Weather disturbances leave P746 million agriculture damage](#). Philippine Star.

-
- Better access to financing can improve farmers productivity as they can use the capital to technology and infrastructures to increase yield. As a result, this also improves the household food security as stable supply leads to more manageable prices for consumers.
 - Insurance solutions will also increase investments for the agriculture sector which experiences weak investment due to the risk of natural disasters.

Enabling Environment

- RA 10607: Amends PD 612 or 'The Insurance Code' and contains provisions that defines the microinsurance implemented in the country.
- RA 8425: Also known as the Social Reform and Poverty Alleviation Act of 1997, it recognizes microfinance as the central strategy for poverty alleviation.
- RA 10693: Microfinance NGOs Act: Duly accredited Microfinance NGOs can access technical assistance and programs from the government.
 - The Act states that duly registered and accredited Microfinance NGOs shall pay a 2% tax based on gross receipts.
- Insurance Commission Circular Letter 2015-53: Legalizes and details the adoption and implementation of the agricultural microfinance framework by private insurance companies.
- Circular Letter 2015-54 outlines the government's policy thrusts on the provision of microinsurance products and services by the private sector.
- Insurance Commission Circular Letter 2013-18 and 2013-17: Outlines the guidelines for the implementation of ADReM involving commercial and cooperative insurance companies that offer microinsurance products.

Impact Risks

- Economic: Delayed payment of claims can cause users to decline because of unreliability.
- Gender inequality and/or Marginalization: Without financial insurance, farmers will experience greater losses which may render them financially inadequate to continue farming in future.

Case Studies

- CARD Bank, Inc. is a microfinance bank that was founded in San Pablo City, Laguna on September 1, 1997. It has since grown to become a nationwide financial institution with 54 branches and 329 Micro Banking Offices (MBOs). CARD Bank serves over 900,000 clients across the country and has recently partnered with Cebuana Lhuillier in the inclusion of microinsurance as part of a requirement for small-scale agricultural financing. While the current coverage is small, there's significant growth of the market for those areas that have proven the viability of claims in case of calamity.
- Sureserv is a Filipino microfinance service provider that helps working-class Filipinos pay for healthcare. It aims to fill the healthcare access and convenience gap by providing loans to working-class Filipinos so they can afford the healthcare they need and has helped employees from manufacturing, manpower, retail, SME, and BPO companies.
- ASA Philippines is a non-profit, non-stock corporation specializing in microfinance. The first branch that the foundation started with was in Camarin, Caloocan in August 2004, and as of today the foundation has already expanded its operations nationwide. The foundation caters to more than 2 million clients who are called by ASA as Micro Entrepreneurs.
- The "Weather Index-Based Insurance (WIBI) Mindanao Project," an initiative implemented by the UNDP in partnership with the Philippine government (specifically PCIC and the Department of Agriculture) from 2014-2017, aimed to address climate-related risks in agricultural communities in Mindanao, focusing on Regions X and XI. The program offered insurance coverage for major grain crops, particularly rice, against both low and excess rainfall. By the end of 2015, the project had distributed weather index-based insurance to 837 enrolled farmers, covering approximately 961 hectares and amounting to around USD 350,000 payouts.



9. Digital Healthcare

Payment Processing

Sector: Health Care



Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING 	5 GENDER EQUALITY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES

Market Size: > USD 1 billion
Indicative Return: 15% - 20%
Payback Period: Medium Term (5 - 10 years)
Investment Size: > USD 10 million



Development Need

In 2018, public spending on health was only USD 50 per person, i.e., only half the amount spent by ASEAN countries that successfully implemented universal healthcare. Post pandemic, analysts expect that the under-five mortality rate has increased compared to the last reported 2019 data of 12.83%. This is coupled with multiple closures of last mile healthcare delivery services due to severe cashflow issues during the pandemic. Industry leaders highlight the need for reinvestment in the sector to improve basic healthcare within the country.

Multiple challenges related to health IT emerged during the pandemic. Many hospitals had to close business due to delays in payment resulting from challenges in processing of requests by the government owned health insurance company, PhilHealth. Such closures and slowness of data collection caused delayed delivery of treatment, and other health-related emergencies.

The lack of a digital healthcare solutions including payments within the Philippine Health Insurance Corporation threatens the financial risk protection of millions of Filipinos. The inadequacy also hampers healthcare delivery systems as many hospitals are dependent on PhilHealth.

Business Description

Invest in B2B payment processing platform solutions which will streamline payment processing and expedite reimbursements from both private and government-owned insurance companies. This digital solution includes claims management, automated payment posting, and electronic remittance advice (ERA) processing. Revenue can be generated from transaction charges from hospitals, health care providers, and insurance companies including PhilHealth.

Expected Development Outcome

- Ensuring efficiency, accountability, and transparency in the processes of PhilHealth will result in the improvement of service delivery and financial protection among its stakeholders⁵⁷.
- Having improved payment system will lessen risks of small clinics in remote areas in having sufficient working capital, essential for sustaining operations, which sometimes lead to closure of critical healthcare facilities, especially in marginalized areas.
- Promotion of digital solutions on healthcare payments will increase productivity in the health sector that will contribute to addressing other system-related problems, including information management for better healthcare services.

⁵⁷ Department of Health (DOH). (2021). [The New Normal for Health](#).

Enabling Environment

- The Universal Health Care Act (RA 11223) of 2019 details the National Health Insurance Program as well as its implementing rules and regulation. Section 34 also mandates that health information systems should always ensure patient privacy and confidentiality.
- The Data Privacy Act of 2012 ensures data privacy and confidentiality of the population amidst all information communication processes in government and private sector.
- The Ease of Doing Business and Efficient Government Service Delivery Act sets the rules and regulations for processes in government offices and agencies. It ensures efficient flow of services as well as proper management of public affairs and public property while avoiding graft and corruption.
- RA 7875 as amended otherwise known as the National Health Insurance Act of 2013 defines the components of the NHIP. It also outlines the rules and regulations for implementation of the program including all PhilHealth-related activities.
- The Philippine eHealth Strategic Framework and Plan set forth strategies in the application of ICT in improving healthcare service delivery in the country⁵⁸.
- Joint Administrative Order 2021-0001 under the DOH and PhilHealth sets guidelines on the implementation and maintenance of an integrated health information system across all levels of health care and health insurance providers in the country.
- In March 2023, PhilHealth and DICT signed a memorandum of understanding⁵⁹ for a collaborative partnership wherein DICT will conduct evaluation and provide recommendations and strategies for the improvement of PhilHealth's ICT system to ensure efficient delivery of services.

Impact Risks

- Social: Lack of security in the implementation of health information systems may cause violation in the Data Privacy Act, harming people's right to privacy and confidentiality.
- Social and Economic: System downtime or frequent need for maintenance may defeat the purpose of improving service delivery.
- Gender inequality and/or marginalization: Potential increase in disparities in health insurance provision across gender and socio-economic status.

⁵⁸ DOH. (2014). [Philippine e-Health Strategy Framework and Plan](#).

⁵⁹ [PhilHealth and DICT sign pact. \(2023, March 20\)](#), Manila Bulletin.

Case Studies

- PhilHealth IT Transformation Project - The Philhealth IT Transformation Project involves the design and development of an IT system which aims to streamline Philhealth's scope of work. This was submitted by Aboitiz InfraCapital (AIC)– the infrastructure arm of one of the country's largest conglomerates, the Aboitiz Group– and Unisys Public Sector Services⁶⁰.
 - By the end of 2021, PhilHealth earned the net income of P32.84 billion (590 million USD), which is higher by P2.8 billion (5.01 million USD) from the previous year. This is after the Corporation has recognized a total of P140 billion (2.5 billion USD) in members' benefit claims expense. Consequently, its total assets also rose by 27% with a total of P347.48 billion (6.22 billion USD) in 2021.
 - Specifically, AIC and Unisys are proposing to design and develop an end-to-end system to digitalize and optimize Philhealth's claims, contributions and membership, and accreditation processes. Moreover, it will provide data capture and reporting services in support of the National Health Data Reporting Repository.



⁶⁰ PPP Center. https://ppp.gov.ph/ppp_projects/philhealth-it-transformation/

10. Affordable Hospital Infrastructure

Development in Remote Areas

Sector: Health Care



Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



Market Size: > USD 1 billion
Indicative Return: 10% - 15%
Payback Period: Long Term (more than 10 years)
Investment Size: < USD 500,000

Development Need

The Philippine Development Plan 2023-2028 outlines four priorities to improve the health sector and achieve universal health care in the new normal: (1) improvement of the social determinants of health, especially for the vulnerable sector; (2) people empowerment towards healthy choices and behavior.

The Philippines' hospital bed density of 1.2 beds for every 1000 people, is one of the lowest statistics in the world. To reach the target of 4 beds for every 1000 population – as that of upper middle-income and high-income countries – additional 400,000 beds are required. By 2040, outpatient visits and inpatient bed-days are expected to increase by 60% mostly due to lifestyle- and aging-related noncommunicable diseases. In NCR alone, the projected need of Level 1, 2, and 3 hospital beds are 3189, 1351, and 1985, respectively⁶¹.

The Philippine Health Facility Development Plan for 2020-2040 (PHFDP) emphasizes the importance of investing in specialty health facilities. Specifically, investment of USD 1.446 billion in infrastructure and equipment is required until 2025 and USD 19.4 billion for Specialized Laboratories.

Business Description

Invest in construction of new hospitals or expansion of existing healthcare facilities in remote and underserved areas to improve bed capacity. Affordability is at the forefront of this initiative, employing cost-effective, modular hospital designs.

Expected Development Outcome

- Healthcare facilities will be able to cater to variety of health conditions by being able to provide multi-specialty services. With an increased capacity of available health infrastructure, the health care and treatment need of the population will be addressed.
- With adequate public healthcare facilities, and competent personnel, Filipinos would be encouraged to take care of their health better.
- Availability of public healthcare facilities, especially in far-flung areas, will entice Filipinos to have their health checked without the challenges of riding a boat to the main island; or traversing a rough path to reach the town.

⁶¹ Department of Health (DOH). (2020). [Philippine Health Facility and Development Plan](#).

Enabling Environment

- The Philippine Health Facility Development Plan 2020-2040 states the need for large and sustained investments in health infrastructure. It encourages private sector investment on top of increased public spending more than the P13B it spent on health infrastructure and capital investments in 2018.
- Administrative Order 2023-0009 of the DOH contains the guidelines on the implementation of projects under the Health Facility Enhancement Program (HFEP) of the current year. The HFEP is the annual manifestation of the plans outlined in the long-term PHFDP 2020-2040.
- While the Mandanas-Garcia Ruling by the Supreme Court in 2018 mandates the revenue increase from the national government to local governments to 55% in the 2022 budget, some local governments expressed concern on their financial and technical absorptive capacities.
- National Tax Allotment (NTA) shares of local governments decreased in 2023 due to the low revenue collection in 2020 because of the COVID-19 pandemic.
- Section 29 of the Universal Health Care Act (RA 11223) defines the equity of healthcare service delivery among public and private facilities giving priority to the underserved and low-income sector.
- The Republic Act 6957, as amended by the Republic Act 7718 or also known as the Build-Operate-Transfer (BOT) Law details the general terms of private sector investments and involvement in PPPs involving public infrastructure projects.
- RA 11712 or the Public Health Emergency Benefits and Allowance for Health Care Workers Act outlines the allowance, compensation package and other benefits entitled to healthcare workers, such as hazard pay and life insurance of USD 18,000 in case of death.
- Section 27(B) of the National Internal Revenue Code of 1997 imposes 10% tax on proprietary non-profit hospitals' income.

Impact Risks

- Social: Substandard equipment or materials may pose further health risks instead of providing cure to patients; Inadequate health facilities for the growing population of patients may further increase mortality rate

Case Studies

- The Department of Public Works and Highways (DPWH) constructed more than 600 COVID-19 facilities, providing a total of 24,513 beds nationwide. These facilities include quarantine and isolation centers, as well as off-site dormitories, and modular hospitals. These healthcare resources are strategically situated in major cities and provinces across various regions in the country, including BARMM.
- Funded through Development Bank of the Philippines term loan amounting to around USD 8 million, the Province of Camarines Norte initiated the project for the development of District Hospital. The project includes the construction of a two-storey building with an initial bed capacity of 25 beds.
- University of the Philippines - Philippine General Hospital, with the funding support from the President and CEO of Sta. Elena Construction, constructed the Department of Pediatrics-Hematology-Oncology Isolation Ward. The project is a stand-alone 320-square meter pediatric ward with 14-bed facility meant for cancer patients, especially children from poor families. Total project cost is undisclosed.



11. Modular Specialized Health

Care Facilities for Patients with Chronic Kidney Disease in Underserved Areas

Sector: Health Care



Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



Market Size: > USD 1 billion
Indicative Return: 20% - 25%
Payback Period: Short Term (less than 5 years)
Investment Size: USD 1 million - USD 10 million

Development Need

Latest data from the National Kidney and Transplant Institute states that 40 Filipinos develop renal disease per day. In 2021, more than 7M Filipinos had been diagnosed with chronic kidney disease (1). Along with other NCDs, renal diseases belong to the top 10 causes of mortality in the country⁶².

Non-Communicable Diseases (NCDs), including kidney problems, related to unhealthy lifestyles and environments and an increasingly ageing population are currently the leading cause of mortality among Filipino adults, which comprised 64% of total deaths in the country as of 2019. Meanwhile, there are 2.3 million Filipinos with chronic kidney disease and only 372 dialysis centers in the country as of 2023⁶³.

Low-income population and those in remote areas are the most impacted due to inadequate public health services. Health care facilities, including specialized health centers for kidney diseases, often close down due to lack of proper investment and financing solutions, which in-turn adversely impacts such communities.

Business Description

Construction of modular specialized healthcare facilities for dialysis patients in remote areas with identified demand and support from local government

Expected Development Outcome

- The establishment of specialized healthcare facilities will help in slowing down the mortality rate due to NCDs and other diseases needing specialized care and contribute towards increase in the life expectancy of patients diagnosed with such diseases.
- Supplementary to Philippine Health Center, the creation of specialty health facilities is crucial to the attainment of universal health care. This allows more focused provision of care and services for specific health conditions while increasing the capacity to cater to the health needs of the rest of the population.

⁶² Philippine Statistics Authority (PSA). (2023). [2022 Causes of Deaths in the Philippines](#).

⁶³ DOH. (2023). [Guidelines on the Implementation of Projects Funded Under the Health Facilities Enhancement Program \(HFEP\) Fiscal Year 2023](#).

Enabling Environment

- The Philippine Health Facility Development Plan for 2020-2040 (PHFDP) emphasizes that investing in specialty health facilities is crucial with investment needs for infrastructure and equipment until 2025 estimated at PHP 82 billion.
- Administrative Order 2023-0009 of the DOH contains the guidelines on the implementation of projects under the Health Facility Enhancement Program (HFEP) of the current year. The HFEP is the annual manifestation of the plans outlined in the long-term PHFDP 2020-2040.
- Section 29 of the Universal Health Care Act (RA 11223) states that all specialty health facilities in the country shall regularly submit a report of bed occupancies reflecting the prioritization of low-income patients (not less than 70%).
- The Health Facilities and Services Regulatory Board (HFSRB) under the DOH is the primary authority that implements and monitors regulatory policies and standards that ensure the quality of practices and services within health facilities.
- The Republic Act 6957, as amended by the Republic Act 7718 or also known as the Build-Operate-Transfer (BOT) Law details the general terms of private sector investments and involvement in PPPs involving public infrastructure projects.

Impact Risks

- Social: Substandard equipment or materials may pose further health risks instead of providing cure to patients.
- Gender inequality and/or marginalization: If most infrastructure projects are located in urban centers, it may still require hours of travel time from marginalized communities to access such centers.

Case Studies

- The UP-PGH Diliman Project is a 375 million USD project that involves the construction of a 'world-class' hospital through public-private partnerships. It aims to provide an addition of 700 beds to cater to the growing need in the NCR and neighboring provinces, Rizal and Laguna.
- The UP-PGH Cancer Center Project is a 30-year concession where public-private partnership is involved in the planning, construction, and operation. It is expected to provide a 300-bed capacity facility for cancer patients, half of which is allocated for free use of low-income patients.
- The Baguio General Hospital Medical Center (BGHMC) Renal Center Building Project involves the development of a renal treatment facility that will house 60-110 hemodialysis machines under a 15-year PPP contract period. It will serve the needs for hemodialysis of renal patients in the northern Luzon regions (Region 1, 2, and Cordillera Administrative Region).
- The Department of Public Works and Highways (DPWH) constructed more than 600 COVID-19 facilities, providing a total of 24,513 beds nationwide. These facilities include quarantine and isolation centers, as well as off-site dormitories, and modular hospitals. These healthcare resources are strategically situated in major cities and provinces across various regions in the country, including BARMM.



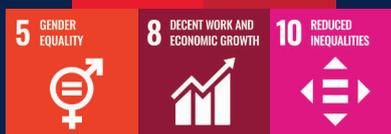
12. Low-cost Internet Services

in Partnership with Last-mile Local Governments

Sector: Technology and Communications



Sustainable Development Goals:



Market Size: > USD 1 billion
Indicative Return: 5% - 10%
Payback Period: Short Term
(less than 5 years)
Investment Size: > USD 10 million

Development Need

Internet access especially in remote areas remain to be a challenge. As of June 2023, only 35% of the country is reported to have access to the internet⁶⁴. With heavy transition of education towards hybrid learning, lack of access to internet and technology significantly adds to learning losses.

This issue is even more prominent in geographically isolated and disadvantaged areas (GIDAs) which lack ICT infrastructure. For instance, in Bangsamoro region where most GIDA can be found, only 51% of elementary schools have access to internet, which is 14% lower than the national average (DepEd 2022)⁶⁵. Further, in a study by T4 Education, around 72% of the teachers observed learning losses in poorer sections of the country primarily brought by poverty and the digital divide⁶⁶.

Asian Development Bank and Thinking Machines Data Science, Inc. reveals a significant digital divide in the Philippines, with 83 percent of the population having adequate fixed broadband speeds and 70 percent having sufficient mobile internet access⁶⁷. Urban areas, particularly Metro Manila, fare better than rural regions, emphasizing the disparity.

Wealthier cities enjoy much faster internet speeds than poorer counterparts, indicating an economic divide. Access is further limited for the "last mile" population, residing over 2 kilometers from major roads, with only 15 percent having suitable fixed broadband and 6.5 percent out of 9.4 million at the "last mile" having adequate mobile internet access⁶⁸. Geographical constraints and uneven infrastructure deployment contribute to these disparities, underscoring the urgent need for targeted efforts to bridge the digital gap and enhance internet accessibility, especially in remote and underserved areas.

Business Description

Providing low-orbit satellite internet solutions to last mile communities which can then be used for education, communication and e-commerce. Business models can operate through providing short-term loans to local governments for the internet as well as working in partnership with e-commerce solutions and generating proceeds through small service fees.

Expected Development Outcome

- Internet connectivity allows learners to access e-learning platforms and digital resources. A more extensive range of learning materials and resources can improve the educational outcomes of students.
- Increasing digital connectivity will spur employment growth and enhance financial resilience, through access to more opportunities including e-commerce, within the identified locations and communities.

⁶⁴ The Philippine Star (2023) [65% in Philippines Not Connected to Internet](#)

⁶⁵ Konrad Adenauer Stiftung (2022) [Addressing Challenges in EdTech](#)

⁶⁶ Philippine Daily Inquirer (2021) [International Study Notes Worst Learning Loss Among Poorest PH Kids](#)

⁶⁷ Data Portal (2023) [Philippines Internet Penetration](#)

⁶⁸ Statista (2023) [Philippines E-Commerce Spend Growth](#)

Enabling Environment

- MATATAG Agenda: DepEd's overarching 4-point agenda to improving the country's education system. The 2nd point focuses on infrastructure: "Take steps to accelerate the delivery of basic education facilities and services. "
- DepEd Order No. 46, s. 2011: Provides guidelines on the implementation of the DepEd Internet Connectivity Project which deploys ICT equipment to secondary schools.
- Digital Rise Program: A holistic framework that encompasses increasing technological access and availability as well as capacity building of teachers and learners with regards to ICT use.
- RA 11927: National Digital Workforce Competitiveness Act, a law that aims to ensure that all Filipino workers have access to and are provided with digital skills and competencies that are at par with global standards.
- DTI's E-Commerce Roadmap which aims to prepare the country's infrastructure, institutions, systems, and people to fully embrace an economy that operates in the digital universe, we will be able to see the growth of the e-Commerce sector.
- RA 7925: Public Telecommunications Policy Act: Establishes the National Telecommunications Commission which facilitates and manages qualified service providers in the Philippines. Section 5 highlight its responsibilities.
- RA 11659: Amending the Public Service Act: Allows 100% foreign ownership to telecommunications.
- DepEd Order No. 78, s. 2010: Provides guidelines on the implementation of the DepEd Computerization Program which provides public schools with modern technology.
- RA 11534: Corporate Recovery and Tax Incentives for Enterprises Act (CREATE): Defines the tax incentives for registered business enterprises investing in the Philippines including a tax of only one percent (1%) on their taxable income for businesses that are for educational purposes.

Impact Risks

- Social and Economic: Last mile schools will continue to be deprived of internet connection that can further support learning.
- Gender inequality and/or marginalization: Increased internet connectivity if improperly used might exacerbate gender issues, including trafficking of persons through online transactions.

Case Studies

- Installation of Starlink internet improved the internet speed in Sta. Ana National High School in Barangay Sta. Ana, Pandan, Antique, mainly through local funding, which is situated in one of the isolated barangays in the province. Before the installation, the school had a 20 Mbps WiFi connection with a slow download speed of 6.93 Mbps. After installing Starlink internet, initial speed tests demonstrated significant improvements, with download speeds ranging from 217.3 Mbps to 324.97 Mbps, and upload speeds increasing from 6.49 Mbps to 28.7 Mbps.
- Remote communities in need of high-speed internet may take advantage of the satellite internet service provided by Starlink and have its cost shared among users. The cost of Starlink is around USD500 for each satellite dish and a monthly cost of around USD100 to USD200 while providing up to 200 Megabits per second (Mbps) of low latency internet service. (22)
- Kacific provides services from Kacific1, a Ka-band satellite that uses concentrated spot beams—from Batanes to Palawan and even all the way to Sulu which allows very effective geographic targeting, especially in mountainous areas. Kacific is being supported by companies such as SKY Perfect JSAT, The Boeing Company, and Marsh and McLennan (22)
- The Philippine Space Agency (PhilSA) launched the Introducing Non-Geostationary Satellite Constellations Test Deployments to Improve Internet Service, or INCENTIVISE, project in 2020, supported by USAID. The project aims to determine the effectiveness of the emerging satellite internet technologies in the country. (23)



SUSTAINABLE DEVELOPMENT GOALS

