AECOM

Gogo and Daculan Treatment Wetlands

Green-Gray Partnership Project for Philippine Cities and Municipalities

Estancia, Iloilo

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With support from:

FONDS FRANÇAIS POUR L'ENVIRONNEMENT MONDIAL

CONSERVATION INTERNATIONAL

About the Green-Gray Partnership

Climate change can no longer be ignored. The raging waters of typhoons Ondoy in 2009 and Haiyan 2013 are seared in Philippine collective memory. In the span of three weeks in 2020, three typhoons battered the country, inflicting over a hundred fatalities and at least PHP 25 billion (USD 518 million) worth of damage. The Philippines urgently needs to harness nature to uplift communities not just because it's better for the planet, but because making the most of available resources is an economic necessity.

In the last quarter of 2021, just as the Philippines was reining in the pandemic, Conservation International and AECOM began the Green-Gray Partnership Project with eleven local cities and municipalities to kickstart the adoption of nature-based solutions.

Integrating green natural systems into gray infrastructure provides multi-function and cost-effective solutions. Green-gray combines natural elements with hard infrastructure to protect and restore natural processes and create healthier urban environments. The combination allows the creation of natural habitats or system functionality (green infrastructure) in a resilient and optimized manner (gray infrastructure). Many green-gray solutions incorporate wetland and forest habitats. As with all habitat creation/restoration projects, the success of these initiatives depends on an understanding of the ecological structure and function of the target habitats.

Green-gray infrastructure approaches can apply in coastal, freshwater, and terrestrial settings and accomplish a variety of project goals. The typical infrastructure services such as flood management, costal protection, and improving water quality are delivered alongside other benefits such as safeguarding biodiversity, providing livelihoods, increasing public space, and even financial returns to local communities through carbon credits.

A key reference for this engagement is the *Practical Guide to Implementing Green-Gray Infrastructure* by the Green-Gray Community of Practice, which is led by Conservation International. The guide, published in 2020, provides green-gray case studies and walks readers through the process of project preparation, design, and implementation. It also defines the critical elements of the green-gray approach:

1. Using science and engineering to produce operational efficiencies;
2. Using natural processes to maximize benefits (i.e. ecosystem services);
3. Increasing the value provided by projects by including social, environmental, and economic benefits; and
4. Using collaborative processes to organize, engage, and focus interests, stakeholders, and partners.

Conservation International selected the pioneer batch of Green-Gray partner cities and municipalities based on the following criteria:

- **Commitment to a Resilient Future** Good track record and strong interest for pursuing a climate-resilient future for their locality;
- **Drivers of Change** Positioned as municipal leaders for a sustainable future for the Philippines;
- **Rich and Diverse Natural Assets** Representation of the abundant biodiversity of the Philippines; and
- **Vulnerability to Impacts of Climate Change** Exposure to the impacts of climate change.

The Green-Gray Partnership Project was meant to equip local governments units (LGUs) with capacities to identify opportunities for the adoption of nature-based solutions and prepare concept notes to rally support for pilots. At the beginning of the project, it was essential to transfer knowledge of green-gray infrastructure through the guide and workshops focusing on case studies. This built a base from which the local governments drew from in order to craft a Statement of Intent and a Concept Design Note (Annex 1), both of which are contained in this document.

This document, containing a high-level design and assessment, may be used by the local governments to seek support for project preparation (in which the concept should be refined with further studies), detailed design, and implementation. Support may be sought from national government, financing institutions, grant giving foundations, and private sector partners.

Municipality of Estancia, Iloilo, Philippines

Gogo and Daculan Treatment Wetlands

Treatment Wetlands in Barangays Gogo and Daculan, Estancia, Iloilo to revitalize the Seaweed Industry

4965
Benefitting Residents
source: CDP 2022-2027

3,780
Metric tons of CO_2 captured

1818
Metric tons of Improved Aquaculture Productivity

Based only on assumptions and estimates; for verification in next stage

Location
Municipality of Estancia, Iloilo, Visayas

Proposed Site
Barangay Gogo and Barangay Daculan

Key Thematic Area
Coastal

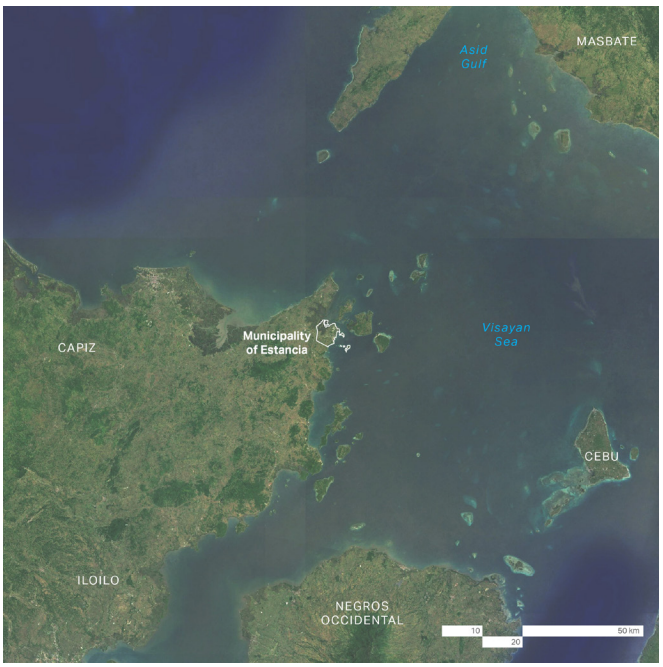
Key Issue
Poor sewage system resulting to deteriorated water quality affecting fishing community's livelihoods

Green-Gray Solution
Integration of Sewage Treatment Plants and Wetlands

Proposed Implementation Timeframe
2-3 years

Executing Agencies
- Office of the Municipal Agriculturist
- Municipal Environment and Natural Resources Office

Project Aim
A Green-Gray Infrastructure (GGI) Solution is proposed to address the issue of untreated wastewater being discharged from the residential developments that will ultimately improve water quality to revitalize the seaweed industry in the area. It also aims to enhance biodiversity through ecosystem restoration and reduce the wastewater treatment cost, which can be a scalable and replicable cost-effective solution for similar communities across the country.



Estancia Location Map

Estancia Green-Gray Partnership Project Location Map

Overview

Barangay Gogo and Barangay Daculan on the northeast coast of Estancia, Iloilo, rely on seaweed farming. However, what was once a year-round cropping season is now limited to certain seasons. The changes were observed when the farmers upstream started to grow hybrid corn and use Glyphosate herbicide to eliminate weeds. Moreover, when the post-Haiyan resettlement areas were constructed and inhabited, untreated sewage flowed towards the coast where the seaweed farms are located.

In order to protect the marine resources, proposed Sewage Treatment Plants and wetlands along the shoreline will treat and filter the wastewater before it is discharged to the coast. The aim is to revitalize the seaweed industry in the Municipality of Estancia, and to deploy a scalable and replicable solution for cost-effective wastewater treatment across the country.

Sustainable Development Goals (SDG) Targets

Rationale

The Municipality of Estancia is in the northernmost part of the Province of Iloilo. It is bounded on the North by the Municipality of Balasan, South and East by the Visayan Sea, and West by the Municipality of Batad. It is 135 kilometers away from Iloilo City and it is composed of 25 barangays. It has a total land area of 2,938 hectares—the second smallest municipality in the Province of Iloilo. It has territorial waters of 47 square kilometers, the spawning ground of various species of fish and fishing grounds of a vibrant fishery sector, dominated by small-scale fishers.

Among the most abundant caught finfish are pelagic species such as sardines, mackerels, and ponyfish The fishing gear used by most fisherfolk are jigger lines, gill nets, and hook-and-line. Women are involved mainly in net repairing and fish drying and selling. Many fishers are also engaged in sari- sari stores, fish vending or processing as an alternative livelihood to augment income. Others are also involved in farm laboring or carpentry, but some of them are only dependent on fishing. There are recorded 24 fisherfolk associations and one cooperative across the coastal barangays.

The Estancia Fish Port, which was rehabilitated by the Department of Transportation and Communications with funding from the government of Japan after Typhoon Haiyan, is located downtown on the east coast of the municipality.

The waters of Barangay Gogo and Barangay Daculan

Further north, the fishery sector looks different. In Barangay Gogo and Barangay Daculan, the local fishing communities rely on seaweed farming. Edible seaweed such as "lato" (*Caulerpa lentillifera*) are commonly gathered from reef flats while "guso" (*Eucheuma cottonii*) is produced by occasional agar-agar culture.

The mangroves of Estancia have an estimated area of 21.86 hectares, its seagrass beds at 16 hectares and coral reefs at 20.6 hectares. In 2004, through Municipal Ordinance No. 2004-12, the municipality established one marine protected area (MPA), which is 10 square kilometers; a portion of which fronts the coast of Barangay Daculan.

A total of twenty-one (21) species of mangroves were observed in the municipality during July 2020 survey. *Avicenennia marina*, *Rhizohora mucronate*, *Rhizophora apiculate*, and *Sonneratia alba* are present in Barangay Gogo. The same four species plus *Avicennia rumphiana* are present in Barangay Daculan. According to Estancia's Coastal Resource Management Plan 2020, the overall abundance of seedlings and saplings in most sites indicate the capacity or potential (41-84%) of the mangroves for natural regeneration.

The two barangays also have significant seagrass beds. Gogo, at 31.66% seagrass cover, has *Enhalus acoroides*, *Cymodocea rotundata*, and *Halodule pinifolia*. Daculan, with 33.17% cover, has only *Enhalus acoroides*.

Water pollutants

The wastewater being discharged from three post-Yolanda housing development sites, the runoff coming from corn fields which uses Glyphosate herbicides, and used oil discharge by the dry-docked fishing vessels pose challenges on the biodiversity and seaweed farms of the two barangays.

When the coastal water is polluted by chemicals and residential waste, aquatic flora and fauna are impacted. Unnatural chemicals and dissolved matter affect the breeding and cropping cycles. Deposits in the fish and seaweed make them unsafe to eat. Moreover, organic matter and nutrients such as fertilizers facilitate an increase in the growth of aerobic algae—a phenomenon that is called eutrophication, which consumes a large portion of dissolved oxygen required by other aquatic lives.

To address the problem, Municipality of Estancia has earmarked 4 sewage treatment plant (STP) locations, two of which are put forward to integrate green-gray solutions.

Project Proposal

Municipality of Estancia proposes that two of the STP locations as sites for green-gray infrastructure. The STPs will process the wastewater coming from the housing developments for the victims of typhoon Haiyan and the seepage from the plantation areas. The sites were selected by the LGU based on land availability, proximity to the primary source of the wastewater, and the adjacency to the public drain.

Treatment wetlands will be established through mangrove enrichment at the discharge points of the creeks utilized by the STP outfalls. The wetland area will act as a secondary natural filter to further improve the quality of the treated wastewater. Ensuring water quality is up to standard or even better in this area is key to the flourishing of the seaweed farms and the fisherfolk dependent on them.

An offshore breakwater shall be installed in the form of gabion oyster baskets to protect the seedlings from intense wave action and will also serve as another layer of natural filtration system for the wastewater. The oyster baskets can supplement existing livelihoods, especially for the women who harvest shellfish in the area.

Green-gray infrastructure impact
Improving the coastal water quality in in Barangay Gogo and Barangay Daculan in Estancia, Iloilo through green-gray infrastructure may unlock multiple benefits including:

- Improve seaweed yield and stabilize the livelihoods of smaller scale fisherfolk
- Generate jobs associated with mangrove rehabilitation and oyster farming
- Improve marine biodiversity
- Reduce the impact of storm surges on fishing villages

Ultimately, the pilot can make a case for the municipality wide adoption of nature-based strategies to:

- Promote low carbon and inclusive growth of the fishery sector
- Restore the blue carbon ecosystems in Estanica's municipal waters and marine protected area

Seaweed industry potentially affected by proposed STPs' discharge

Treatment wetlands as secondary natural filter to STP discharge

Gabion oyster baskets as breakwater to protect mangrove seedlings

Sustainable Development Goals (SDG) Targets

Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life

Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

By 2030, achieve universal and equitable access to safe and affordable drinking water for all

By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

Support and strengthen the participation of local communities in improving water and sanitation management

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

Strengthen efforts to protect and safeguard the world's cultural and natural heritage

By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

Substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Integrate climate change measures into national policies, strategies and planning

Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

Provide access for small-scale artisanal fishers to marine resources and markets

Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

Mobilize additional financial resources for developing countries from multiple sources

Adopt and implement investment promotion regimes for least developed countries

Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

Indicative Implementation Arrangements

Precise implementation arrangements remain to be determined at the pre-design preparation phase, but it is foreseen that the project shall be led and monitored by the Office of the Municipal Agriculturist and Municipal Environment and Natural Resources Office.

Relevant Government agencies are the Department of Health, Department of Environment and Natural Resources, Department of Agriculture and Department of Interior and Local Government. The agencies will play an important role to make sure that our projects adhere to environmental and agricultural laws.

Under the program operations manual for the National Sewerage and Septage Management Program (NSSMP), the Department of the Interior and Local Government is tasked to assist in the capacity building of local government units in the country concerning NSSMP as well as to facilitate compliance.

Monitoring and Evaluation Plan

The progress and success of the project can be measured by tracking the following indicators:

- Coastal water quality in Barangay Gogo and Barangay Daculan meet the standards stipulated by the Department of Environment and Natural Resources
- Increased seaweed cultivation production tonnage in the local farms
- Marine biodiversity inventory
- Mangrove growth and survival rate

Due Diligence

This document contains a green-gray infrastructure design concept and high-level assessments. More details are required in order to refine this concept into a robust and detailed proposal; thus, the project preparation phase for this project should include:

- Feasibility Study
- Environmental and social impact assessment or environmental and social management framework
- Stakeholder consultations at national and project level implementation including with indigenous people, if relevant
- Gender assessment and action plan
- Operations and maintenance plan, if relevant
- Loan or grant operation manual, as appropriate
- Co-financing commitment letters

If required, the preparation of this project may include the following studies:

- Diagram of the theory of change
- Economic and financial model with key assumptions and potential stressed scenarios
- Pre-feasibility study
- Evaluation report of previous project
- Results of environmental and social risk screening

Conservation International's Diversity, Equity, and Inclusion (DEI) framework

At Conservation International (CI), we are committed to promoting human rights by reducing equity gaps and facilitating the enhancement of social and environmental sustainability. All of our projects are held to strict social and environmental principles as agreed upon and laid out by internationally accepted standards such as the Community, Biodiversity, and Carbon standard, as well as the Global Environmental Fund (GEF) and Green Climate Fund (GCF) safeguards. However, CI is taking our responsibility to communities and the environment even further with a commitment to tracking and monitoring Diversity, Equity, and Inclusion (DEI) benefits through our Environmental and Social Safeguards System (CISS), a system that exceeds international standards. To achieve maximum socio-environmental and climate benefits plus long-term sustainability of any project, we believe that communities must be at the center and actively participate in the design of any conservation initiative in which we engage. Central to this, CI engages communities in:

1. Developing the project components, including governance, management processes, and distribution mechanisms in a consultative, transparent and participatory manner with relevant stakeholders (Conservation Agreements ensure that all parties are heard and decisions are made jointly).

2. Addressing gender inequality in all of our conservation programming, monitoring, and reporting efforts.

3. Guaranteeing the long-term financial viability of the project through optimizing project implementation while maximizing benefits.

4. Prioritizing non-monetary benefits whenever possible to increase the number of beneficiaries and better guarantee long-term project success.

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ANNEX
Design Note

Statement of Problem and Thematic Area

The Municipality of Estancia is experiencing a decline of its seaweed industry due to untreated wastewater coming from the newly constructed residential developments in Barangay Gogo and Barangay Daculan as identified by the Local Government Unit (LGU). Untreated sewage coming from the residential developments are discharged to a public drain and directly released to creeks or open canals that eventually flow to the coast. Due to the discharge of untreated sewage, fishermen in the area have experienced declines in their seaweed harvest.

Project Aim

A Green-Gray Infrastructure (GGI) Solution is proposed to address the issue of untreated wastewater being discharged from the residential developments that will ultimately improve water quality to revitalize the seaweed industry in the area. It also aims to enhance biodiversity through ecosystem restoration and reduce the wastewater treatment cost, which can be a scalable and replicable cost-effective solution for similar communities across the country.

Location of proposed Sewage Treatment Plants (STPs) in Estancia

Proposed STP 1 location

Proposed STP 2 location

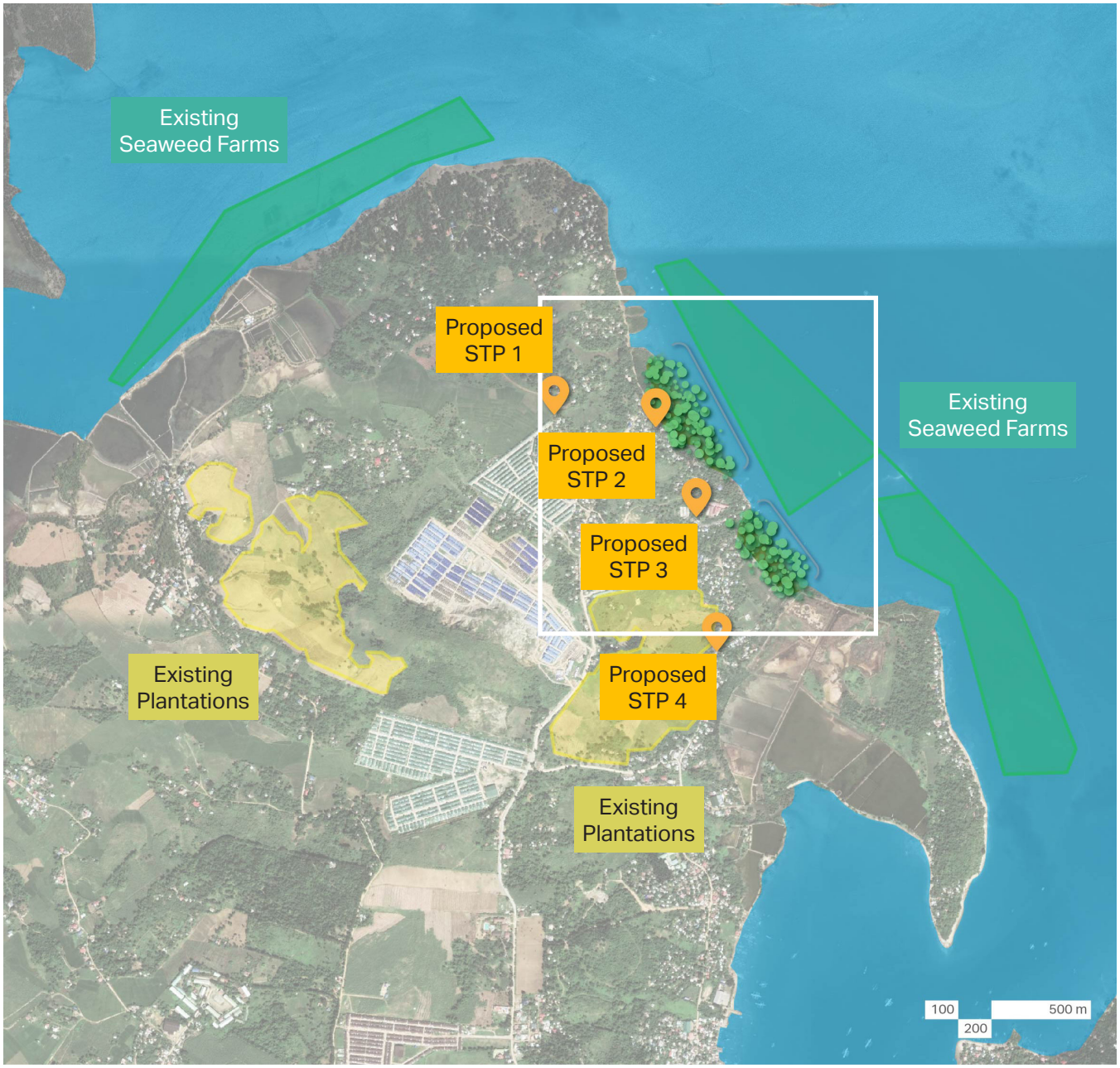
Proposed STP 3 location

Proposed STP 4 location

Proposed STP locations' existing conditions showing existing water tributaries leading to seaweed industry

Green-Gray Infrastructure Strategy

Two (2) Sewage Treatment Plant (STP) locations have been identified with the assistance of the LGU based on land availability, proximity to the specified primary source of the wastewater, and the adjacency to the public drain. A proposed wetland area shall be created through mangrove enrichment at the discharge point of the creeks where the STPs are attached. The wetland area will act as a secondary natural filter to further improve the quality of the treated wastewater. An offshore breakwater shall be installed in the form of gabion oyster baskets to protect the seedlings from any wave action and will also serve as another layer of natural filtration system for the wastewater. The oyster baskets also provide another source of livelihoods, especially to women and children who harvest shellfish in the area.



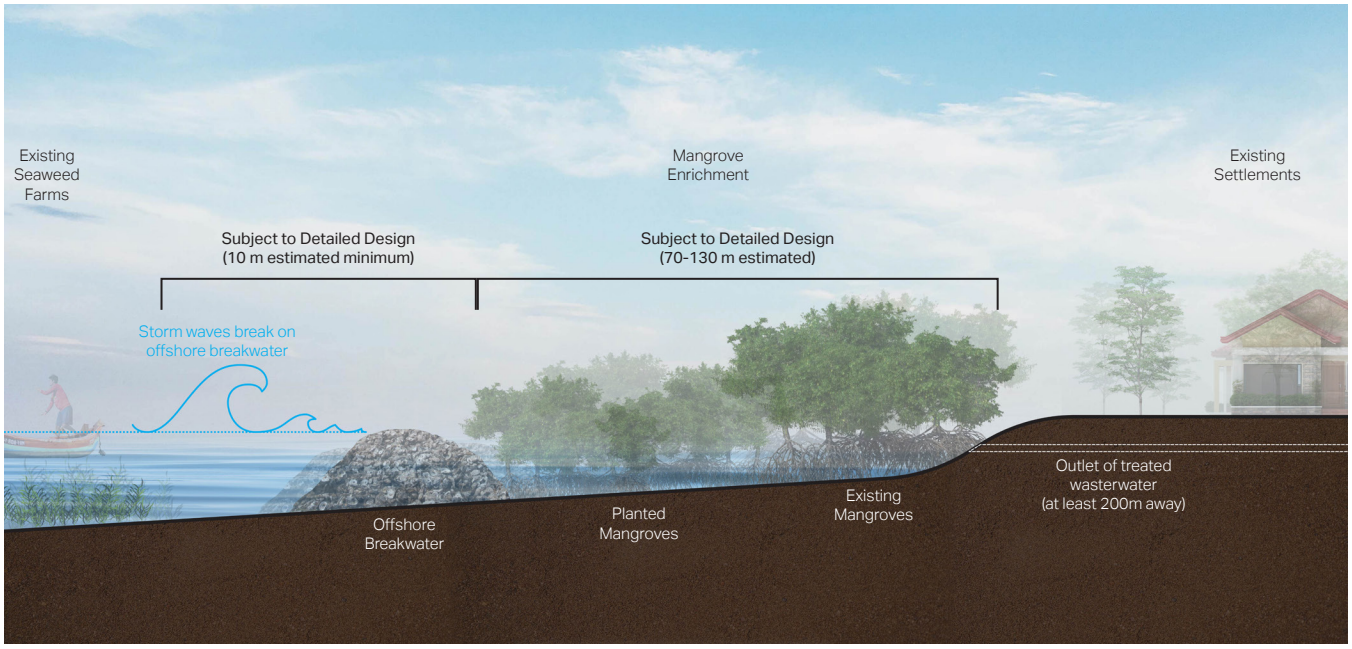
Estancia GGI Concept Strategy Plan

5.7 ha
total land area for planted mangrove

0.8 km
total length of breakwater

Estancia GGI Concept Strategy Blow-up Plan

Green-Gray Infrastructure Concept Strategy



Calatagan GGI Concept Strategy Section

Offshore breakwater

Oyster nets, reef balls, or similar materials to be used for the offshore breakwater to protect mangroves

Mangrove enrichment

Due to their interconnecting roots and branches, mangroves reduce wave energy. In comparison, they only have a minimal impact on storm surge which penetrates the mangroves.

Benefits of a GGI Solution

Aside from addressing the issue of improving the water quality being discharged to the coast that will improve the livelihood of the fishermen, other benefits from the proposed solution are: a) enhancement of local biodiversity; b) reducing impact of storm surge to the coastal communities; and, c) carbon sequestration from restored mangroves.

Integrated Holistic Approach

The proposed GGI Solution is a pilot project that is envisioned to be potentially scaled-up or replicated in the other parts of the country. Whilst, the proposed solution is addressing the key issue at hand, it is important to note that identifying the root cause of the problem is essential to be addressed – in this case, the inadequate design and construction of residential developments.

Other Approaches

Additional approaches can also be considered to supplement the proposed GGI solution to increase effectiveness in addressing the challenge:

- Conservation agreements with the LGU and local fishing communities y to include coastal resource management that will be conducted to compliment the GGI initiative
- Develop an Integrated Regional Watershed Management Plan, that considers long-term water and wastewater management
- All new residential developments shall comply with requirements to have a septic tank; and for commercial developments to comply with the requirements to have an on-site STP
- A low-cost composting toilet for households
- Assessment and regulation of pesticides and herbicides used in inland agriculture

Implementation Period

A timeline of 2-3 years is estimated to prepare, implement, and construct this GGI solution. Due to lack of data and information readily available, additional studies and scoping work shall be required to validate and collect more information regarding the key issues identified by the LGU and the assumptions that have provided during the concept design stage. The proposed project timeline shall cover the following phases:

1. Predesign Phase
3-5 months;

This will include all the necessary study, scoping and data collection needed to establish, verify, and gather information required to proceed with a detailed engineering design.

2. Design Phase
2-4 months

A detailed engineering design shall be required to fully develop the conceptual design after using the verified data to accurately design the infrastructure according to the required specifications to address the key issue.

3. Implementation Phase
12-36 months

This will include the compliance to the required regulations/standards, seeking of approval of concerned agencies, and observance of due diligence. Upon obtaining the necessary approval and permits, the construction of the infrastructure or implementation of the prescribed program shall be done.

4. Operation, Maintenance and Adaptive Management
periodical

This shall include periodic monitoring of the infrastructure, maintenance and repair if required, evaluation of the impacts to surrounding communities, rehabilitation and retrofitting if required.

AECOM

Facts and figures

1.

AECOM launched when a handful of employees from design and engineering companies shared a dream of creating an industry-leading firm dedicated to making the world a better place.

2.

AECOM became an independent company formed by the merger of five entities. While our official founding was in 1990, many of our predecessor firms had distinguished histories dating back more than 120 years.

3.

Since then, more than 50 companies have joined AECOM and, in 2007, we became a publicly traded company on the New York Stock Exchange.

4.

As the world's trusted infrastructure consulting firm with an unrivaled heritage delivering design, planning, engineering, consuing and construction management solutions.

AECOM in the Philippines

Established in 1996, AECOM in the Philippines has grown into a 200+ strong team of planners, engineers, environmental scientists, geologists, landscape architects and technical management specialists driven by a common purpose to deliver a better world.

Creating Sustainable Legacies

We are leading the change towards a more sustainable and equitable future by partnering with our clients to provide solutions that help them achieve their environmental and social value ambitions and advancing sustainable business operations to help prevent the worst impacts of climate change.

47,000 people

Fortune 500 #163

Work across seven continents

2 Million Work Hours Awards

Revenue $13.2 billion in fiscal year 2020

100% Rating on Corporate Equality Index / Best Places to Work for LGBT Equality 2021

Accolades

- ENR rankings No 1
- Environment Firm
- Transportation Design Firm
- Facilities Design Firm
- Mixed-Used Buildings
- Education Buildings
- Aviation
- Highways
- Chemical Remediation
- Top 10 Military Friendly company 2020
- Military Friendly® Top 10 Company
- Military Friendly® Top 10 Supplier
- Diversity Program
- Military Friendly® Top 10 Employer
- Military Friendly® Top 10 Spouse Employer
- National safety council: 155 Perfect Record Awards
- Achieved a minimum of 12 consecutive months without a recordable injury or illness.
- For each award, achieved a minimum of one million consecutive hours without an injury or illness that resued in days away from work and zero fatalities.

CONSERVATION INTERNATIONAL

Bogota, Colombia (C) Conservation International

Since 1987, Conservation International (CI) has worked to spotlight and secure the critical benefits that nature provides to humanity.

Combining fieldwork with innovations in science, policy and finance, we've helped protect more than 6 million square kilometers (2.3 million square miles) of land and sea across more than 70 countries. Today, with offices in more than two dozen countries and a worldwide network of thousands of partners, our reach is truly global. But we couldn't have made it this far without you. Your contributions support our work to protect nature for the benefit of us all.

CI's work in Asia-Pacific began in 1989 with a pledge to protect some three dozen of the Earth's biodiversity hotspots, including the Philippine archipelago and the Sundaland rainforests of Southeast Asia.

Since then, our focus in Asia-Pacific has expanded across the region to include other ocean and forest areas considered critical to human well-being. We help improve food security, support innovative financing for conservation projects and establish protected area networks that encompass essential ecosystems.

CI's unique combination of experience with ecosystem conservation and restoration, community co-design, and stakeholder leadership allows us to advise and lead green-gray initiatives around the world in collaboration with local, regional and national governments and engineering partners.

Priorities

- **Stabilizing our climate by protecting and restoring nature**
- **Doubling ocean protection**
- **Expanding planet-positive economies**

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle — from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a *Fortune 500* firm and its Professional Services business had revenue of $13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

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