



AFoCO Project Document

Project code	AFoCO/029/2022
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Project Profile	
Project title	Ensuring Functioning of Cultural Ecosystem Services in an Urban Setting: Assimilating Nature for Forest Healing and Experiential Learning in Ninoy Aquino Parks and Wildlife Center
Project duration	Estimated start date: October 2023 Estimated end date: November 2025
Implementing Agency	Department of Environment and Natural Resources Biodiversity Management Bureau (BMB) and Forest Management Bureau (FMB)
Participating countries	Philippines
Project site	Ninoy Aquino Parks and Wildlife Center (NAPWC or the Park) Quezon Avenue, Diliman, Quezon City, Philippines
Main objective	To contribute to the realization of various ecosystem services from the protection and development of the NAPWC
Target Area¹	Primary Target Area: Priority 3. “Promoting community forestry and sustainable use of forest resources.” Secondary Target Area: Priority 4. “Strengthening human and institutional capacities to enhance SFM.”
Budget and source of finance	Total: US\$ 984,175.00 - AFoCO: US\$ 705,000.00 - National: US\$ 279,175.00 US\$ 187,478 (Counterpart projects/activities) US\$ 91,697 (Personnel attribution)

Proponent Profile		
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SUMMARY

The proposed project is in line with AFoCO's Priority Areas as follows: Priority 3: "Promoting community forestry and sustainable use of forest resources;" and Priority 5: "Strengthening human and institutional capabilities to enhance Sustainable Forest Management (SFM)." It envisions Ninoy Aquino Parks and Wildlife Center (NAPWC) as a learning laboratory and at the same time a venue for natural healing and recreation. The proposed project is anticipated to revitalize NAPWC with new and/or improved amenity, facility, and capacities to establish and promote intangible benefits that can be derived from an urban forest and a well-managed biodiversity.

The proposed project aims to: (1) develop Payment for Ecosystem Services Scheme in NAPWC; (2) assimilate nature in an urban setting and establish a healing forest and experiential learning promoting the contribution of forests and biodiversity to human health and well-being; and (3) develop policy recommendations enhancing policies that promote cultural ecosystem services in an urban setting.

The project proposes to initially conduct a feasibility study of NAPWC which includes scoping and preliminary assessment of the site, market research to evaluate potential of the forest for healing and experiential learning and consultation workshops among stakeholders. Participants of the workshop shall be composed of duly registered People's Organizations, Local Government Units (LGUs), Department of Environment and Natural Resources (DENR) personnel, and the private sector (e.g. tour operators). Further, valuation of the ecosystem services will be conducted. This activity is crucial in determining the various ecosystem services that the site offers. Cost-benefit analysis and development of payment schemes for ecosystem services will form part of this activity.

Fundamental to achieving objective no. 2 is the planting of trees. Not just any other tree but those native to the Philippines. Through the project, the ongoing transformation of NAPWC into an arboretum of native trees shall be *accelerated* and augmented. With poor soil condition, organic fertilization will be employed and automated irrigation systems will be installed. The Materials Recovery Facility (MRF) will be relocated at the Northern part of the Park, while the existing lagoon will be excavated to increase its water holding capacity and improve its bathymetric gradient. Other developments to assimilate a natural setting includes the conversion of the proposed forest healing area from a peninsula into an islet as part of the installation of a waterfall/water feature; and installation of natural perimeter fence to lessen noise levels.

This assimilation will facilitate the accomplishment of objective no. 2, which is the establishment of a healing forest for human health and well-being. Presently, the BMB has a standing collaboration with the Philippine Tropical Forest Conservation Foundation, Inc. (PTFCFI), Philippine Association of Landscape Architect (PALA), and the Philippine Institute of Environmental Planners (PIEP) to support and implement the Urban Forest Bathing Program (UFBP), where the pilot area is the NAPWC. While one of its components is the "establishment of urban forest bathing", partners such as the PTFCFI are limited to providing funds only for research purposes and not for physical development and infrastructure. Simulating a functioning forest bathing activity within NAPWC to gather data as basis for policy recommendation is one of the support to be provided by the PTFCFI. Further, NAPWC is a

classified National Park with a Management Board serving as overseer and with a Management Office that has permanent staff members headed by a Protected Area Superintendent who supervises the day to day management and protection of the NAPWC. As a protected area under the National Integrated Protected Areas System (NIPAS), over-all control and administration lies with the DENR through the Biodiversity Management Bureau (BMB) which is lodged within the NAPWC. With the above-mentioned partnerships and with the institutional set-up of NAPWC, sustainability of the proposed project is ensured.

Capacity building activities shall be provided to DENR personnel (permanent or contractual) who will serve as nature interpreters and park attendants. Nature interpreters are the conveyors of the value and importance of forest and biodiversity to visitors.

Finally, policy write shops and consultations will be conducted to translate lessons learned from the project activities to policies and guidelines. By the end of the project, the initiative is expected to protect and preserve NAPWC to maximize the provision of ecosystem services from the watershed and increase localized carbon sinks. The project will also lead urban residents to appreciate more the relevance of urban parks; and shall likewise be a champion in translating this project into enabling policy guidelines which can further be used and replicated in other parts of the Philippines, if not other Asian countries.

SECTION A. PROJECT CONTEXT

1. Background

The rapid degradation and deterioration of the quality of environment in Metro Manila result in health hazards to its residents. The issues on global warming and climate change further exacerbate these kinds of problems which greatly affect the well-being of the people. Moreover, the influx of people from rural areas results in overcrowding of side-walks, canals, residential areas, and any conceivable vacant spaces. It is estimated that there are about fourteen (14) million people in Metro Manila, wherein 21% of whom are informal settlers. The voluminous solid wastes generated by the residents, improper disposal and the lack of basic sanitary facilities contribute to the worsening health problem in the metro. Aside from increasing urbanization and climate change, we are beset with the COVID-19 pandemic that further affects the physical, social, and emotional well-being of the people.

In order to improve the health and well-being of people living in mega-cities, such as Metro Manila, establishment and maintenance of urban forests and biodiversity is one of the interventions sought. Literature reveals the psychological, physiological and social well-being benefits of contact with forest ecosystems. Literature likewise established that urban parks with dense trees and minimal paving have benefits, as follows: reduced “urban heat island” effect; improved local air quality; reduced risk of flooding and improved water quality; and acted as “wildlife corridors.” Aside from these benefits, urban forests and biodiversity served as easy get-aways for nature enthusiasts with limited time for travel outside the Metro. *However*, urban forestry and biodiversity programs and its tangible and intangible benefits are either undervalued, disregarded or unexplored in the Philippines.

Urban forestry in the Philippines is governed by several policies and programs issued and implemented in the past decades. Political will, support from the government, and perhaps appreciation of the benefits is wanting as indicated by the lack of relevant enabling policies. Continuity of previous initiatives is also wanting with the lack of follow-through programs that are focused on urban forestry.

The following policies and programs related to urban forestry primarily aims to enhance awareness and participation of Filipinos in providing and maintaining green, clean and beautiful environmental, as well as promote multi-sectoral collaboration:

1. Presidential Decree No. 953 entitled “Requiring the Planting of Trees in Certain Places and Penalizing Unauthorized Cutting, Destruction, Damaging and Injuring of Certain Trees, Plants and Vegetation”
 - Signed by then President Ferdinand Marcos (July 6, 1976), this policy requires private landowners to plant trees extending at least five meters on each side of the rivers and creeks;
 - Developers of residential subdivisions/villages shall set aside 30% of total area as open spaces for parks and recreational areas.
2. Presidential Decree No. 1153 entitled “Requiring the Planting of one Tree every Month for Five Consecutive Years by Every Citizen of the Philippines”
 - Signed in 1976 by former President Marcos, PD 1153 requires all able-bodied Filipinos to plant a tree per month for five consecutive years.
3. Letter of Instruction 1312, Mandating the establishment and development of local government forests or tree parks all over the Philippines
 - Signed in 1983, it requires all barangay, municipalities and cities to establish and maintain at least one forest or tree park of considerable size
4. Malacañang Memorandum Order No. 1988-198 and 199 regarding the “Luntiang Kamaynilaan Program”
 - Signed in 1988, these memorandum orders were issued to help ensure a healthy environment in Metro Manila and to serve as a model program for other cities and municipalities.
5. Malacañang Memorandum Circular No. 5 series of 1992, entitled “Creating an Inter-Agency Committee and Adopting the Plan for the Cleaning and Greening of Metro Manila”
 - Also known as the Clean and Green Program, it targeted a massive planting of 2.5 million trees in 5 years (from 1993 to 1997).
6. Executive Order No. 113, series of 1993, entitled “Enjoining all Sectors to Participate in Tree Planting Activities in Support of Environment and Natural Resources Programs”
 - This policy mandated the Department of Environment and Natural

Resources to identify, assess and designate suitable area for planting and management

7. Executive Order No. 118 series of 1993, Mandating the active participation of all government agencies nationwide in urban greening, through an adopt-a-street/park program
 - It aims to develop streets and parks in urban centers by requiring all government agencies to adopt a street or parks, and plant trees.
8. Presidential Proclamation No. 396, series of 2003, entitled “Enjoining the Active Participation of All Government Agencies including Government-owned or Controlled Corporations, Private Sector, Schools, Civil Society and Citizenry in Tree Planting Activity and Declaring Wednesday, June 25, 2003 as Philippines Arbor Day
 - Signed on June 2, 2003, it provides for the multi-sectoral participation in tree planting activity nationwide, to develop greater awareness on the importance of trees in environment, health and human life.

At the end of each program, there seems to be no serious post-project monitoring and evaluation of outputs and accomplishments. This may be attributed to the fast turn-over of different policies and programs being implemented whenever there is a change in administration, and to the lack of manpower and resources in monitoring the projects that had been implemented. Despite these policies, other national and local programs, and awareness of the public on the benefits of forests and green spaces, urban parks and associated recreational activities are not highly valued in the country. There are no dedicated laws on urban forestry programs in the country legislated in recent years, hence opportunities in promoting the value and benefits of urban parks and associated recreational activities were missed. For the longest time, the development of comprehensive urban forestry programs has not been a priority agenda of the national government and of most cities. Policy makers and forest managers have difficulty in valuing intangible benefits forests provide. Although, in an attempt to institutionalize urban forestry in the country, urban forestry was included in the 1990 Master Plan for Forestry Development. A national policy on the payment of ecosystem services, particularly on the various regulating, cultural and supporting services derived from urban forests, is yet to be developed.

Urban forests which can be defined as “networks or systems comprising all woodlands, groups of trees, and individual trees located in urban and peri-urban areas” are often more valued for their aesthetic and regulating ecosystem services rather than their cultural services. People look at the forests as a provider of wealth through economic benefits. In the Philippines, Filipinos view the forests more as a source of livelihood instead of a place for rest and recreation. Aside from the current scenario of limited facilities, forest parks and green spaces are not a popular choice of recreation due to the country’s tropical climate and its inaccessibility.

Nowadays, forest-based tourism is a growing land use activity and nature tourism has become a way of diversifying the means of livelihood of the people. Forests,

especially in other countries, are now viewed as a provider of opportunities to experience aesthetic and restorative environments, relieve mental stress, and become physically fit. Aside from being producers of timber and other forest products, forests also contribute to the mental, psychological, and physiological aspects of an individual. Indeed, research shows that forests, particularly trees, have healing powers. Forest healing is a calming journey of change and healing through nature. The concept of forest healing could encourage public and private sectors to invest, protect, restore and manage forests. It connects nature with healing, resilience and sustainability.

Provided that the Philippines has been blessed with rich forest resources and even has numerous natural parks, the use of forests for healing, rest, and recreation are one of the opportunities that can be explored. The forest environment and forest-related outdoor activities have many positive impacts on both physical and mental health of the people. Hiking, camping and other outdoor recreation activities have been getting a lot of attention lately. Living in a fast-paced world, more and more people, especially young professionals and families with kids, are starting to appreciate the beauty and other benefits nature has to offer. With this, forest conservation and recreation are now considered as a means to aid in the development of oneself, intensifying relationships due to shared experiences with families, friends and other individuals.

In 2018, the DENR Secretary urged local government units to prioritize developing their respective urban forestry programs to promote sustainability and resilient urban development. Raising the urgency of establishing model forests in each of the Philippines' mega-cities, the importance of trees and nature in improving human health and overall well-being of our society should be prioritized.

Being the center of culture, economy, education and government in the Philippines, Metro Manila, a densely populated region, suffers continuous loss of urban green spaces. In fact, approximately 12,152.79 hectares or only 21% of Metro Manila's total land area are devoted as green space serving a population of about 14 million. *For instance*, the La Mesa Eco park, which has an estimated 200,000 visitors annually, only serves 1.4% of the total population of Metro Manila. According to the management of the La Mesa Eco park, visitors mostly consist of old people, families, and people with illnesses. During this Covid-19 pandemic, forests and urban parks provide essential services and products that will support improvement of public health towards economic recovery.

On the other hand, NAPWC had an average 267,670 visitors annually in the last three years, pre-pandemic. From January to March this 2021, NAPWC received a total of 8,440 visitors. Activities are limited to video/photo shoots for pre-nuptials, debut and the like. With the establishment of a healing forest that has assimilated a natural setting within NAPWC, these visitors could have enjoyed the benefits of forest bathing.

Lessons learned and other data analyzed from establishing a healing forest and operationalizing a forest bathing activity will be used as basis in formulating national policy and program/projects promoting urban parks and outdoor recreation activities in the country.

2. Conformity with AFoCO's Objectives and Strategic Priorities

2.1. Primary Target Area: Priority 1 "Promoting community forestry and sustainable use of forest resources"

Under Priority 3 of AFoCO's objectives and strategic priorities, community forestry and maintenance of the forest ecosystem are top priorities. The payment for ecosystem services is included and is in the top priorities among the AFoCO members. The project is consistent with the objectives of the AFoCO's agreement, specifically on promoting the sustainable use of forest resources - non-extractive uses. The project aims to put values on cultural ecosystem services that the NAPWC can offer, wherein the area will be developed for forest healing and experiential learning. The scheme that will be developed in this project can help other members to establish payment schemes not only in other urban areas within the Philippines, but in the respective AFoCO-member countries. On the other hand, members with advanced experiences on the payment for ecosystem services can contribute to the project.

2.2. Secondary Target Area: Priority 4 "Strengthening human and institutional capacities to enhance SFM"

Strengthening the capabilities of the members to enhance SFM is one of the priorities of the AFoCO agreement. The project activities to be implemented involve capacity building of stakeholders through transfer of technologies and sharing of knowledge and experience. Stakeholders of the NAPWC include the NAPWC Management Board, civil society organizations, private sectors and park visitors. The capacity building programs are vital to equip the people with the skills and knowledge to strengthen sustainable forest management.

3. Regionality

The proposed project will lead to the development of a model for forest healing and experiential learning, which will create opportunities in valuing cultural services of the ecosystem. Technical cooperation with the Republic of Korea (ROK) is very crucial in the project as the ROK is an exemplary country in the development of arboretums and nature facilities in urban areas and programs for forest healing. The documentation of the processes and experiences in project implementation can be used and replicated in other Asian countries. It is imperative in the region to develop such efforts to value the various ecosystem services that forests can offer for the development and protection especially in urban areas.

4. Information on project target area

4.1. *Geographic Information*

The project will be implemented within the Ninoy Aquino Parks and Wildlife Center, a 23.85-hectare classified National Park pursuant to the National Integrated Protected Areas System (NIPAS) or RA 7586, as amended, by the Expanded NIPAS Act of 2018 or RA 11038. Located in the heart of Quezon City, it is tagged as the: “Nature Park in the City’s Heart.”

NAPWC is bounded on the North by North Avenue, South by Quezon Avenue, East by the Quezon Memorial Circle or the Elliptical Road, and West by the Philippine Science High School. It is geographically located within 12103’ East longitude and 140 39’ North latitude. The Park is accessible by land transportation. There are two entrances to the Park, the main gate is at the Quezon Avenue entrance and the second, at the North Avenue entrance. Within the Park is a three-kilometer asphalt Road that serves as its main thoroughfare. There are signposts within the Park that will guide the visitors to the various facilities, trails and picnic areas, among others (see Annex A).

4.2. *Environmental Information*

While one of the recently legislated protected areas, NAPWC is unique among all the protected areas in the Philippines. Its biophysical profile indicates that it is not ecologically rich, it does not have unique geologic areas and is not a natural habitat of endemic and/or threatened species of plants and animals. An article published by Manila Bulletin in June 2020, showcased trees in Quezon City that have withstood the passing of time. These included a number of Acacia trees (Fabaceae) which is an exotic, a few native species such as Narra (Fabaceae), Kamagong (Ebenaceae), Dita (Apocynaceae), Duhat (Myrtaceae) and Botong (Lecythidaceae), ascertaining the limited plant diversity in the area, then and now. *Nonetheless*, as of August 2020, NAPWC has a total of 3,936 trees of which 1,917 are exotic species. Of the 1,917 exotic species, 613 are Mahogany and 217 are Gmelina, both exhibit the characteristics of being invasive.

Faunal assessment, specifically volant mammals and birds was conducted in 2019. A total of 44 individuals from 4 species of bats were captured within NAPWC within 20 net nights. On the other hand, there were 102 individuals of birds assessed as follows: Eurasian Tree Sparrow (40), Pacific Swallow (16), Black-naped Oriole (10), Yellow-vented Bulbul (9), Black-crowned night heron (6), Brown Shrike (6), Domestic Pigeon (5), Crested Myna (2). Maya is the Filipino common name for the Eurasian tree sparrow. This is just introduced to the country, but has adapted very well to its conditions and was in fact the former national bird of the country, prior to the Philippine Eagle. All the birds, except for the Eurasian Tree Sparrow and the Crested Myna are

indigenous to the Philippines and other parts of Asia.

4.3. Socio-Economic Information

In February 2018, census and tagging of informal settler families (ISF) was conducted by the Department of Interior and Local Government (DILG) and the National Housing Authority (NHA) – Resettlement and Development Services Department (RDSD), specifically in the area adjacent to the Philippine Children’s Medical Center (PCMC) along Tanque Creek. The census and tagging was conducted in line with the relocation of the ISF to accommodate the PCMC’s proposed Pediatric Neurological Center. The census validated that 418 families are residing in the area (Annex B). Continuous efforts are made to resettle these families in areas like Pandi, Bulacan, under the Housing Program of the National Housing Authority.

NAPWC houses key areas and facilities for basic nature appreciation. These include: 1) the artificial/man-made Lagoon which has an area of about 4 hectares and a depth that ranges from 3 to 15 feet. Various species of exotic fish can be found in the lagoon such as tilapia, catfish and mudfish; 2) the Gazebo which is an open farm-type cottage hidden among the lush vegetation in the middle of the lagoon and utilized for official meetings/events. The management of the Gazebo is with the Office of the DENR Secretary; 3) Leonardo L. Co Garden of Native Flora can be found within the premises of Bulwagan Ninoy. The garden was inaugurated in honor of Dr. Leonardo L. Co, a well-known botanist and plant taxonomist, who had remarkable contributions in the world of botany.

Serving as home to the institutional offices of the Biodiversity Management Bureau, and other Offices under the DENR, NAPWC also has several infrastructures or major facilities within its perimeter that have been generating revenues, as follows: The Amphitheater, the Fishing Village, five Picnic Sheds, and the Tea House. From use of these facilities including revenues from parking fees and entrance fees, NAPWC was able to generate income from CY 2015 to CY 2020 (Annex C). The pronounced decline in both income and number of visitors in CY 2020 was due to the COVID-19 pandemic.

Pursuant to the NIPAS Act, as amended, the NAPWC has a Management Board whose fundamental function is to oversee the management of the Park. Said Management Board is currently composed of 11 ex-officio members. Pursuant to the same Law, a Protected Area Management Office (PAMO) was established for NAPWC which is headed by the PA Superintendent (PASu) who shall supervise the day-to-day management, protection and administration of the PA. The PASu is primarily accountable to the Protected Area Management Board (PAMB) and DENR for the management and operations for the PA. The NAPWC PAMO has a total of 53 employees including the PASu, of which 32 are permanent and 21 are contractual.

These activities and initiatives at the NAPWC leave much room for

improvement and development. Hence, when funded, it will scale up the services and benefits provided by NAPWC as a nature park and venue for urban forest management, biodiversity conservation, environmental education and an oasis in the center of the metropolis for rest, recreation and forest experiential learning.

5. Stakeholder Analysis

The identified stakeholders include the implementers and beneficiaries of the proposed project. The DENR through the BMB, and park visitors are classified as primary stakeholders as they are the main implementers and direct beneficiaries of the project. The NAPWC Management Board and the private sector are classified as secondary stakeholders as they will be tapped for support in project implementation. Lastly, communities in Metro Manila and surrounding provinces are classified as tertiary stakeholders because they will indirectly benefit from the project.

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Table 1. Stakeholder Analysis

Stakeholder group	Characteristics	Problems, needs, interests	Potential benefits	Involvement in the project
Primary stakeholders				
Department of Environment and Natural Resources (DENR) through the BMB	Primary government agency responsible for the management of the environment and natural resources, including the control and administration of the National Integrated Protected Areas System and such protected areas as the NAPWC	Need for appropriate support mechanisms (enabling policies, expertise, technology etc.) to ensure sustainability of NAPWC initiatives	Enhanced management of the NAPWC. Enhanced policy interventions on urban forest parks/ urban biodiversity as well as on forest healing/ bathing.	Lead implementer Oversee the conduct of activities and budget management Coordinate activities with all stakeholders

Stakeholder group	Characteristics	Problems, needs, interests	Potential benefits	Involvement in the project
Park Visitors	Individuals, community, schools, companies and institutions/ agencies who can access the different services of NAPWC	Need for more avenues to recognize, learn, experience and reap the various benefits of ecosystem services especially in urban environment	Increased awareness, appreciation and use of urban parks and green spaces. Psychological, physiological and social well-being benefits due to contact with forest ecosystems	Direct beneficiaries of the proposed developments
Secondary stakeholders				
Management Board of the Ninoy Aquino Parks and Wildlife Center (NAPWC - PAMB)	Served as overseer of NAPWC. Composed of the ff: the BMB Director; Regional Executive Director of DENR-NCR; representative of members of both houses of Congress; Quezon City Mayor; Chairperson of Brgy. Bagong Pag-asa; Regional Directors of the Departments of Agriculture, National Economic Development Authority, Science & Technology,	Need for assistance to augment the limited resources available for improving the management of the NAPWC and continued delivery of ecosystem services to the community	Enhanced and effective management of the NAPWC and improved delivery of services to the community	Partner for project implementation Support the DENR in the conduct of activities Approve/Affirm proposals, policies plans, programs, agreements & other related documents Advocate and educate the general public on protected area management and biodiversity conservation

Stakeholder group	Characteristics	Problems, needs, interests	Potential benefits	Involvement in the project
	Philippine National Police and National Defense; representative from NGO/PO, academic institution and private sector			
Private Sector	Involved in planning and implementation of the proposed project	Need for more partnership and linkage opportunities to maximize performance of corporate social responsibility	Increased partnership and linkages	A partner for the project who can adopt/take on certain portions of the proposed development to ensure sustainability of the project
Tertiary and other stakeholders				
Communities in Metro Manila and surrounding provinces.	Individuals, families, government and private institutions/ organizations, schools/ academe, businesses, service sector, etc. who pays and/or benefits from various ecosystem services such as clean air, regulated climate, and carbon storage from NAPWC	Need for more avenues to appreciate, learn, experience and reap the various benefits of ecosystem services especially in urban environment	Improved community benefits from ecosystem services May include: reduced “urban heat island” effect; improved local air quality; and, reduced risk of flooding	Indirect beneficiaries of the project

6. Gender Analysis and Mainstreaming

The project is inclusive and will ensure the gender-equal participatory process in the consultation activities specifically on decision making and participation processes. The interests and needs of both genders, regardless of age and socio-economic strata in the society will be considered. Moreover, experiences and expertise of both genders shall be equally integrated into and shall serve as fundamental elements in the design, operationalization, implementation, and monitoring and evaluation of the NAPWC proposed project. Capacity building and knowledge sharing activities of the project will also ensure equal participation from both genders. Moreover, both genders will be represented on the survey and consultation for the payment for ecosystem services as both genders have different takes and experiences on the various services. For example, women are mostly responsible for managing household water portfolios. The project shall ensure that these concerns for women will be addressed.

SECTION B. Problem Analysis and Proposed Actions

1. Problem Identification

Cultural ecosystem services (CES) are intangible benefits that can be derived from nature. It includes recreation, aesthetic enjoyment, physical and mental health benefits, and spiritual experiences. It plays a crucial role in human well-being and contributes to the overall human health, especially to those living in urban areas. However, green spaces or urban forests are being undervalued and disregarded in the country, and the opportunities to increase the value of CES are wanting.

Rapid urbanization and expansion of cities due to increasing demand for land has been affecting the forests, landscapes as well as green areas in and around cities. The expansion of urban areas presents fundamental challenges in restoring and sustaining ecosystem services for more livable and healthy cities. Competing land uses due to increasing population and land conversion contributes to the problem. Built infrastructures are prioritized over developing green spaces making recreational ecosystem services in urban landscapes unvalued over the years. Forests are viewed more as a source of livelihood instead of a place for rest and retreat in the cities. Thus, urban forests or urban parks have been unappreciated as a choice for recreation in the country.

Moreover, urban green spaces have become scarce because of the lack of urban forestry programs in the cities of the Philippines. According to the Food and Agriculture Organization (FAO) (1998), urban forestry requires high political support. However, urban forestry programs are not prioritized in the country. Although several policies and programs have been implemented in the 1970s up to early 1990s, the full potential of the programs were not realized. There are also no dedicated recent local and national policies governing urban green spaces. Due to this fact, the Philippine government did not allocate funds in the development and establishment of green spaces, as well as funding for research related to this area.

Learning about forests and biodiversity through actual experience helps deepen the connection of the people especially the children and the students. Fun outdoor learning ideas and nature activities will provide better appreciation of the value of the forests and biodiversity. Experiencing nature has been known to have a positive mental effect. Same goes with physical activities such as recreational walking, cycling, hiking, among others, which also provides substantial positive health benefits. Facilities and programs in-lined with wellness will be developed through the proposed Forest Healing and Experiential Learning project. This opportunity will improve the perception of people to urban green spaces, and increase the value of CES in the country.

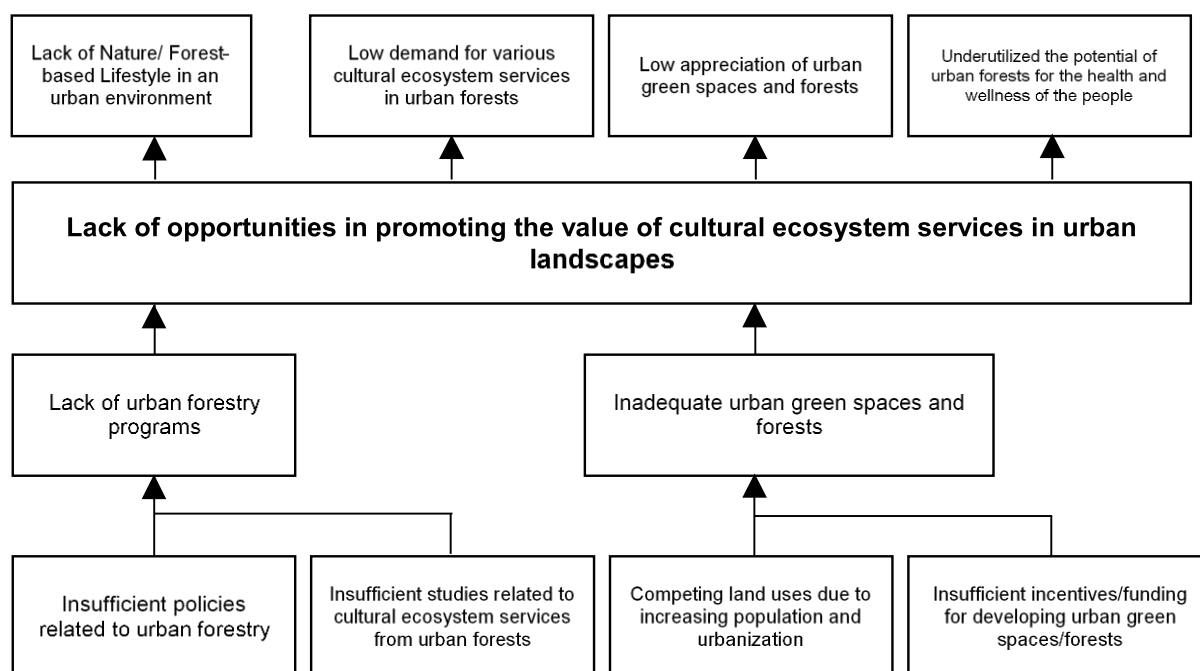


Figure 1. Problem Tree`

2. Problem Description

Nature - based tourism is a growing land-use activity and has become a way of diversifying the means of livelihood of the people. Forests, especially in other countries, are now viewed as a provider of opportunities to experience aesthetic and restorative environments, relieve mental stress, and become physically fit, now more than ever when the pandemic started.

However, in the Philippines, these non-material benefits derived from forest ecosystems are not appreciated. Forests are often valued for their provisioning and regulating services but not much on their cultural services, especially in the urban areas. Limited or complete lack of infrastructure, facilities, and road networks as well as the country's tropical climate compounds the problem of accessing forests for these intangible benefits. Urban forest parks, if available, are a less popular choice of recreation, especially for Metro Manila residents. A quick internet search shows

[Attachment-A]

numerous studies on the provisioning and regulating services and products derived from Philippine forests but only few for the aesthetic, recreational and restorative benefits we get from forests. The Philippines is more focused on the tangible benefits with direct monetary values.

Given that NAPWC is the “nature park in the City’s heart” a heavily-dense city at that, it has a lot of potential to be not just a pilot site for forest healing and experiential learning but also a model for valuing the cultural ecosystem services and improving perception towards urban forests, that are still untapped in the country. This will be an opportunity for NAPWC to be known as a forest/nature-based ecotourism area in Metro Manila that promotes forest management and biodiversity conservation by advocating for a nature/forest-based lifestyle.

3. Logical Framework Matrix

Table 2. Logical Framework Matrix

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs) ²	Means of Verification ³	Important Assumptions
Goal: To contribute to the realization of various ecosystem services from the protection and development of Ninoy Aquino Parks and Wildlife Center				
Outcome(s): Enhanced level of appreciation of the public relative to the cultural ecosystem of urban green spaces, urban parks and forests; Intensified degree of awareness of public on the various endemic and native/indigenous tree species and native flowering tree species in the Philippines; Improved protection and conservation activities of NAPWC; and Improved air quality and increased carbon sequestration potential within the vicinities of NAPWC.				
Objective 1: To Assess and Value Ecosystem Services in the Ninoy Aquino Parks and Wildlife Center				
Output 1: Valuation study on ecosystem services completed				
Activity 1.1: Conduct of ecosystem services valuation	Ecosystem services are the benefits that are provided by the natural ecosystems that sustain human life.	By end of October 2024, ecosystem services valuation study is formulated	-One (1) Ecosystem Services valuation study report	Presence of full support from the local government unit and other stakeholders.
Activity 1.1.1. Preparation for the conduct of ES valuation	Valuation of ES is important to translate the relevance of the ES to the economy.	By the end of March 2024, eight (8) meetings conducted.	-Minutes/highlights of the Meeting	Health protocols in the conduct of consultation workshops are in place.
Activity 1.1.2. Determining/Establishing the value of biodiversity and ecosystem services of NAPWC	The conduct of valuation is crucial in determining the various ecosystem services that the site offers as well as putting value among those ES.	By the end of October 2024, one (1) ecosystem services valuation conducted and valuation study report finalized and submitted.	-NAPWC Ecosystem Services Valuation Report	

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs)²	Means of Verification³	Important Assumptions
Activity 1.1.3. Conduct of consultation workshops	Economic values are important inputs to the environmental policy decision-making process. Also, the valuation of ES can be useful in developing PES.	By end of August 2024, one (1) consultation workshop conducted	- Activity Report	
Output 2: Payment scheme for ecosystem services in NAPWC improved/developed and operationalized				
Activity 2.1: Development of Payment Scheme; i.e. recreational, wellness	The development of the payment scheme will take off from the ecosystem services valuation study. The output of this activity is important in sustaining the efforts of the Project.	By the December 2024, the PES Study report was finalized.	-PES	Presence of full support from the local government unit and other stakeholders
Activity 2.1.1. Preparation for the Development of Payment Scheme for Ecosystem Services	Experiences and learnings of the Masungi Georeserve as a model for PES recreation will be taken into consideration in the development and implementation of the payment scheme for the NAPWC. The said project of the Masungi Georeserve has been contributing in addressing biodiversity loss, climate change and water	By the end of June 2024, eight (8) meetings conducted	-Minutes of the Meeting	
Activity 2.1.2. Rationalizing/ Improving/ Modifying/ Developing PES for NAPWC		By end of December 2024, one (1) PES mechanism formulation conducted and PES Study report finalized and submitted.	-PES Study Mechanism report	
Activity 2.1.3. Conduct of consultation workshops		By November 2024, one (1) consultation workshop conducted	- Activity Report	

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs)²	Means of Verification³	Important Assumptions
	crises through the rehabilitation of the degraded land around the Masungi Georeserve through the funds generated from nature-based tourism in the area.			
Activity 2.2: Forge partnership with communities, various government agencies, non-government organizations, and other stakeholders as part of the sustainability mechanism	Partnership with the stakeholders is vital for the sustainability of the Project. Conduct of consultation meetings and signing of management arrangements between DENR and stakeholders, LGUs or private sector are necessary.	Two (2) partnership agreements forged by end of September 2025	- Two (2) Signed partnership agreements	
Activity 2.2.1 Conduct of consultation meetings	It is envisioned that there will be partnership agreement between the BMB and the relevant organized People's Organization who will manage the facilities and programs pertaining to forest healing and experiential learning.	By April 2024, consultation meetings conducted for the partnership with the NAPWC council By April 2025, consultation meetings conducted for the possible partnership for the sustainability of the project	- Four (4) consultation workshop reports with recommendations - 30 participants in each consultation workshop (15 male & 15 female) - Two (2) drafts Memorandum of Agreement	
Activity 2.2.2 Forging of Partnership		By end of June 2025, at least two partnership	- Two (2) signed Memorandum of	

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs) ²	Means of Verification ³	Important Assumptions
Agreement		agreements forged	Agreement - Two (2) activity reports with recommendations - 30 participants in each event conducted (15 male & 15 female)	
Activity 2.3. Institutionalization and establishment of PES mechanism		By the end of May 2025, One (1) PES system established presented to PAMB for consideration	-Minutes of the Meeting	
Objective 2: To assimilate nature in an urban setting and to establish a model for forest healing and experiential learning; promoting the contribution of forests and biodiversity to human health and well-being.				
Output 3: Arboretum improved and facilities established; and forest healing and experiential learning programs developed				
Activity 3.1: Improvement of an arboretum and facilities for forest healing and experiential learning	<p>The BMB-NAPWC has formulated an Arboretum Plan in 2019, the components of which are currently being implemented. The plan will be revisited incorporating the priorities and objectives of the proposed project.</p> <p>The improvement of natural facilities and the continued transformation of NAPWC into an arboretum of native trees, (which is also included in the NAPWC site</p>	By December 2025, natural facilities such as an arboretum are improved and facilities, including those that assimilate nature, are established and operationalized.	<ul style="list-style-type: none"> - Arboretum improved. - Facilities, including those that assimilate nature are established (forest bathing area/meditation area, flat rocks/beds installed in the lagoon - as pathway to the Forest Bathing area; water fall feature installation; augment the cemented perimeter fence with natural perimeter fencing - to also lessen noise levels for forest bathing) 	Presence of strong political support from the local government of Quezon City.

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs) ²	Means of Verification ³	Important Assumptions
Activity 3.1.1 Review and enhancement of the NAPWC Site Development Plan	development plan) will be prioritized in the development of the area as a pilot for forest healing and experiential learning on the site.	By the end of August 2025, NAPWC Site Development Workshop	- Enhanced Site Development Plan endorsed to the NAPWC Management Board for approval.	
Activity 3.1.2 Procurement of Planting Materials	The activity will adopt a plan of using trees and other natural resources in forest recreation and education. The arboretum will consist of different native and indigenous flowering species of the country to promote not only the ecological importance but also the aesthetics of these trees. This will also increase the visitors' appreciation of the natural facilities. Facilities in support of the forest healing and wellness programs will be established.	By the end of December 2024, all planting materials needed for the arboretum procured; including organic fertilizers. {soil at NAPWC is very poor}	-Procurement report - Planting materials procured	
Activity 3.1.3 Improvement/ Construction of Plant Nursery		By the end of December 2024, plant nursery is improved/ constructed	- Procurement report -Plant nursery constructed	
Activity 3.1.4 Planting of saplings/trees		By the end of December 2024, all planting materials are planted (approx. 3 hectares)	-Geotagged photos of planting materials planted - One (1) activity report	
Activity 3.1.5 Establishment and improvement of facilities	Area for forest bathing and meditation will be enhanced – Water fall feature will be installed to reduce the noise	By the end of December 2024, facilities for forest healing and experiential learning activities are established	- Facilities established (forest bathing area/meditation area; flat rocks/beds installed; water fall feature installed; natural perimeter fencing installed) - Activity reports submitted	

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs) ²	Means of Verification ³	Important Assumptions
Activity 3.1.6 Production and installation of signages and markings	level in the forest bathing area. Natural perimeter fencing installed.	By the end of June 2025, strategically located markings and signages were installed.	-One (1) activity report - Markings and signages produced and installed	
Activity 3.1.7 Expansion of the current Arboretum (contract cost to include demolition of the BMB Materials Recovery Facility and establishment in new location.		By December 2024, the BMB's Materials Recovery Facility will be relocated at the Northeast portion of NAPWC and the vacated area will be included as part of the Arboretum.	- Demolition Report - Activity Report; - Procurement Report; - MRF relocated Arboretum expanded	
Activity 3.1.8. Maintenance and protection of arboretum and facilities		By November 2025, prior to establishment of the arboretum and facilities until the end of the project, the arboretum and facilities are maintained and protected.	-Quarterly activity reports -Arboretum and facilities protected and maintained	
Output 4: Skills and capacities of personnel developed				
Activity 4.1. Undertake needs and capacity assessment (<i>Assessing the needs, capacities and competencies of personnel</i>)	The needs and capacity assessment are necessary to determine the different capacity building activities that are essential to be taken. This activity will match the capacity needs of	By the end of April 2024, vital needs and capacities in the Program implementation are determined	-Needs and capacity assessment report -30 participants in each workshop conducted (15 male, 15 female)	Health protocols in the conduct of assessments workshops are in place.

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs)²	Means of Verification³	Important Assumptions
	the personnel for the implementation of the Project activities.			
Activity 4.2 Conduct of series of training programs related to forest healing and experiential learning programs	Capacity buildings are necessary to equip the not only project personnel but also the forest interpreters, stakeholders such as the academe, NGOs, CSOs with the skills needed in the forest healing and experiential learning programs.	At least five training programs capacity buildings are conducted by the end of September 2025	-Five (5) activity reports	Health protocols in the conduct of capacity building and workshops are in place.
Activity 4.3. Exchange of knowledge and learnings from the experiences of expert countries on forest healing programs and establishment of arboretum	The experiences and best practices of other countries will be taken into consideration in the Project implementation. Lessons from the site visits and workshops will help in the enhancement of strategies on the establishment of arboretum and nature facilities on the site. Moreover, it will be a crucial input in the development of policies/ guidelines.	At least one (1) learning exchange visits and three (3) workshops attended/conducted by the end of June 2025	- Four (4) Activity reports with recommendations	Travel to/from other countries are permitted with health protocols in place.
Objective 3: To develop policy recommendations; enhancing policies relevant to urban forest development and protection (policies that promote cultural ecosystem services in urban setting)				
Output 5: Policies and/or guidelines formulated that are relevant to urban forest development and protection; and the ecosystem services urban				

[Attachment-A]

Output/ Activities	Narrative	Objectively Verifiable Indicators (OVIs) ²	Means of Verification ³	Important Assumptions
forests provide.				
Activity 5.1: Conduct of Write-shops to formulate policies/guidelines <i>(Formulating policies and/or guidelines)</i>	Writeshops will be conducted to translate the lessons learned from the Project activities to policies/guidelines. (Including measures to increase access of the general public to urban forests/green spaces.)	Lessons from the project activities translated into policies/guidelines by end of June 2025.	<ul style="list-style-type: none"> -Two (2) activity reports with recommendations -25 participants in each workshop conducted (12 male & 13 female) -Two (2) Draft policies/guidelines 	Activities on policy formulation will be included in the counterpart budget of the Philippines. These activities will be reflected in the DENR's work and financial plan in support of the project subject to availability of funds. Health protocols in the conduct of different activities are in place.
Activity 5.2: Conduct of policy/guidelines consultation workshops	Upon the drafting of the policies/ guidelines, consultation workshops will be conducted. This activity will ensure that the policies/guidelines will take into consideration various concerns of the stakeholders.	Draft policies/ guidelines have undergone stakeholders' consultation by the end of September 2025	<ul style="list-style-type: none"> - Two (2) activity reports with recommendations - 25 participants in each workshop conducted (12 male & 13 female) - Two (2) Revised draft policies/ guidelines 	
Activity 5.3: Endorsement of draft policies/ guidelines	The revised policies/ guidelines incorporating the inputs from the consultation workshops will be institutionalized through its endorsement to the approving authorities.	By end of November 2025 , guidelines/policies on urban forest development and protection developed and submitted to the approving authorities	<ul style="list-style-type: none"> -Endorsement letters -Final draft policies/guidelines 	

4. Perceived Project Impacts

a. Impacts at the Outcome level

- The urban green spaces and forests will be a venue for improving the health and wellness of the Filipinos.
- There will be an increase in appreciation for various native tree species among Filipinos as well as foreign visitors.
- There will be a positive change in social behavior of the people in terms of environmental protection.
- The enhancement of carbon stocks around Metro Manila through the establishment of an arboretum.
- The prevention of natural disasters such as flooding, and improvement of air and water quality from the protection of the NAPWC.

b. Impacts at the Output level

- The model developed can be replicated in other urban areas to promote the ecosystem services valuation
- Enabling policies/Formulating guidelines will support the government in institutionalizing efforts from the model
- The establishment of arboretum and other facilities for forest healing and experiential learning will increase awareness of local people on the cultural value of the forests
- The model will serve as a laboratory for forestry and other related courses students.

c. Impacts at the Activity level

The conduct of the project activities will lead to the following impacts:

- Values on the ecosystem services in placed
- Increased skills and capacities of project personnel
- Increased appreciation and support from the stakeholders in the development and protection of urban parks
- Enhanced protection and maintenance of the NAPWC

Section C. Description of Project Interventions

1. Work Plan and Schedule

Table 3. Work Plan and Schedule of Activities for the implementation of AFoCO-DENR FRESH Project.

Outputs	Performance Indicator	Responsible Person/									Remarks	
		Body	Year 1 (2023)	Year 2 (2024)				Year 3 (2025)				
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		Q4
Objective 1 To assess and value ecosystem services in the Ninoy Aquino Parks and Wildlife Center												
<i>Output 1 Valuation study on ecosystem services completed</i>												
<i>Activity 1.1: Conduct of ecosystem services valuation</i>	<i>one (1) ecosystem services valuation report developed by end of October 2024</i>	<i>DENR</i>									<i>November to October 2024</i>	
<i>Activity 1.1.1. Preparation for the conduct of ES valuation</i>	<i>eight (8) meetings conducted by the end of March 2024</i>	<i>DENR</i>									<i>November to March 2024</i> <i>Preparation of TOR, and other related Bidding processes</i>	

[Attachment-A]

<p><i>Activity 1.1.2. Determining/Establishing the value of biodiversity and ecosystem services of NAPWC</i></p>	<p><i>one (1) ecosystem services valuation report finalized and submitted by the end of October 2024</i></p>	<p><i>DENR</i></p>									<p><i>April to October 2024</i></p> <p><i>Activities - 1. Stocktaking on Ecosystems Services Valuation, Preparation of ES Valuation Tool, Activity; 2. Data Gathering and Analysis, and Activity 3. Preparation of ES Valuation Study Report) included in this item will be part of the TOR.</i></p>
<p><i>Activity 1.1.3.. Conduct of consultation workshops</i></p>	<p><i>Consultation workshops with report submitted in August 2024</i></p>	<p><i>DENR</i></p>									<p><i>August 2024</i></p> <p><i>Venue to review and finalize PES valuation study report by Project Technical Committee</i></p>
<p><i>Output 2 Payment scheme for ecosystem services in NAPWC improved/developed and operationalized</i></p>											

[Attachment-A]

<p><i>Activity 2.1: Development of Payment Scheme</i></p>	<p><i>one (1) PES mechanism report developed by end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>January 2023 to December 2024</i></p>
<p><i>Activity 2.1.1. Preparation for the Development of Payment Scheme for Ecosystem Services</i></p>	<p><i>eight (8) meetings conducted by the end of June 2024</i></p>	<p><i>DENR</i></p>										<p><i>January to June 2024</i></p> <p><i>Preparation of TOR, and other related Bidding processes</i></p>

[Attachment-A]

<p><i>Activity 2.1.2. Rationalizing/ Improving/ Modifying/Developing PES for NAPWC</i></p>	<p><i>one (1) PES mechanism report finalized submitted by end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>July to December 2024</i></p> <p><i>Activities - 1. Stocktaking on PES for Recreation; 2. Preparation of PES Survey Tool; 3. Data Gathering and Analysis; Activity 4. Preparation of PES Study Report; and Activity 5 .Pilot testing of PES mechanism) included in this item will be part of the TOR</i></p>
<p><i>Activity 2.1.3.. Conduct of consultation workshops</i></p>	<p><i>Consultation workshops with report submitted by end of November 2024</i></p>	<p><i>DENR</i></p>										<p><i>November 2024</i></p> <p><i>Venue to review and finalize Payment Scheme/report by Project Technical Committee</i></p>

[Attachment-A]

<p><i>Activity 2.2: Forge partnership with communities, various government agencies, non-government organizations, and other stakeholders as part of the sustainability mechanism</i></p>	<p><i>two (2) consultation workshops and partnership agreements forged among the partner organization by end of September 2025</i></p>	<p>DENR</p>										<p><i>April to September 2024 & April to September 2025</i></p>
<p><i>Activity 2.2.1 Conduct of consultation meetings</i></p>	<p><i>four (4) Consultation workshops conducted with report submitted by the end of April 2025</i></p>	<p>DENR</p>										<p><i>April 2024 & April 2025</i></p>
<p><i>Activity 2.2.2 Forging of Partnership Agreement</i></p>	<p><i>two (2) partnership agreements forged among the partner organization by end of June 2025</i></p>	<p>DENR</p>										<p><i>June 2024 to June 2025</i></p>

[Attachment-A]

<p><i>Activity 2.3: Institutionalization and establishment of PES mechanism</i></p>	<p><i>One (1) PES system presented to the PAMB for consideration by the end of May 2025</i></p>	<p><i>DENR</i></p>										<p><i>May 2025</i></p>
<p>Objective 2 To assimilate nature in an urban setting and to establish a model for forest healing and experiential learning; promoting the contribution of forests and biodiversity to human health and well-being</p>												
<p><i>Output 3 Arboretum improved and facilities established; and forest healing and experiential learning programs developed</i></p>												
<p><i>Activity 3.1: Improvement of an arboretum and facilities for forest healing and experiential learning</i></p>	<p><i>one arboretum and nature-based facilities developed on the site</i></p>	<p><i>DENR</i></p>										<p><i>November 2023 to November 2025</i></p>
<p><i>Activity 3.1.1 Review and enhancement of the NAPWC Site Development Plan</i></p>	<p><i>Workshop conducted with report submitted by the end of August 2025</i></p>	<p><i>DENR</i></p>										<p><i>August 2025</i> <i>Scheduled at the latter part of the project to include almost all implemented developments in the NAPWC Site and Development Plan</i></p>

[Attachment-A]

<p><i>Activity 3.1.2 Procurement of Planting Materials (including organic fertilizers)</i></p>	<p><i>Planting Materials procured by the end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>April to December 2024</i></p>
<p><i>Activity 3.1.3 Improvement/ Construction of Plant Nursery</i></p>	<p><i>NAPWC Nursery improved/contracted by the end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>November 2023 to December 2024</i></p>
<p><i>Activity 3.1.4 Planting of saplings/trees</i></p>	<p><i>Saplings/trees Planted in Arboretum and Peninsula with activity report submitted by the end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>May to December 2024</i></p>
<p><i>Activity 3.1.5 Establishment and improvement of facilities</i></p>	<p><i>Forest Bathing Area established by the end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>November 2023 to December 2024</i></p>

[Attachment-A]

<p><i>Activity 3.1.6 Production and installment of signages and markings</i></p>	<p><i>Signages and markings produced and installed by the end of June 2025</i></p>	<p><i>DENR</i></p>										<p><i>July 2024 to June 2025</i></p>
<p><i>Activity 3.1.7. Expansion of the current arboretum</i> <i>(relocation of MRF)</i></p>	<p><i>MRF demolished, relocated and established by end of December 2024</i></p>	<p><i>DENR</i></p>										<p><i>January to December 2024</i></p>
<p><i>Activity 3.1.8</i> <i>Maintenance and protection of arboretum and facilities</i></p>	<p><i>Maintenance and protection report submitted annually</i></p>	<p><i>DENR</i></p>										<p><i>November 2023 to November 2025</i></p>
<p><i>Output 4 Skills and capacities of personnel developed</i></p>												
<p><i>Activity 4.1.</i> <i>Undertake needs and capacity assessment</i></p>	<p><i>one (1) capacity needs assessment conducted with reports submitted by end of April 2024</i></p>	<p><i>DENR</i></p>										<p><i>April 2024</i></p>

[Attachment-A]

<p><i>Activity 4.2 Conduct of series of training programs related to forest healing and experiential learning programs</i></p>	<p><i>five (5) training programs conducted with reports submitted by end of September 2025</i></p>	<p>DENR</p>										<p><i>July 2024 to September 2025</i></p>
<p><i>Activity 4.3. Exchange of knowledge and learnings from the experiences of expert countries on forest healing programs and establishment of arboretum</i></p>	<p><i>at least four (4) learning exchange visits and workshops conducted with reports submitted by the end of June 2025</i></p>	<p>DENR</p>										<p><i>April 2024 to June 2025</i></p>
<p>Objective 3 To develop policy recommendations; enhancing policies relevant to urban forest development and protection (policies that promote cultural ecosystem services in urban setting)</p>												
<p><i>Output 5 : Policies and/or guidelines formulated that are relevant to urban forest development and protection; and the ecosystem services urban forests provide</i></p>												

[Attachment-A]

<p><i>Activity 5.1:</i></p> <p><i>Conduct of writeshops to formulate policy/guidelines</i></p>	<p><i>two (2) policy/ guidelines writeshops conducted with report submitted of June 2025</i></p>	<p><i>DENR</i></p>										<p><i>January to June 2025</i></p> <p><i>Amendment of DAO 2016-04 including the payment scheme for Ecosystem services in urban setting based on results of study in NAPWC</i></p>
<p><i>Activity 5.2:</i></p> <p><i>Conduct of policy/guidelines consultation workshops</i></p>	<p><i>two (2) policy/ guidelines consultation workshops with reports submitted by the end of September 2025</i></p>	<p><i>DENR</i></p>										<p><i>July to September 2025</i></p>

[Attachment-A]

<p>Activity 5.3:</p> <p>Endorsement of draft policies/ guidelines</p>	<p>two (2) policy/ guidelines prepared and endorsed to approving authorities by the end of November 2025</p>	<p>DENR</p>										<p>October to November 2025</p>
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2. Budget (USD)

Table 4. Budget Work Plan for the implementation of AFoCO-DENR FRESH Project.

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Objective 1. To assess and place values on recreational ecosystem services in urban landscapes											
Output 1: Valuation of ecosystem services completed											

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
1.1 Conduct of ecosystem services valuation	71,230.00					71,230.00	240.00	70,990.00		71,230.00	
1.1.1. Preparation for the conduct of ES valuation Meals for 15 participants a USD 60/Meeting	60	Number of Meetings	8			480.00	240.00	240.00		480.00	
1.1.2 Determining/Establishing the value of biodiversity and ecosystem services of NAPWC Hiring of Assisting Professional to conduct the ecosystem services valuation	69,000	day	1			69,000.00		69,000.00		69,000.00	
Activity 1.1.3.. Conduct of consultation workshops	1,750	day	1			1,750.00		1,750.00		1,750.00	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Meals and accommodation for 25 participants at USD1,750/day											
<i>Sub-total (Output 1)</i>						71,230	240	70,990		71,230	
Output 2 Payment scheme for ecosystem services in NAPWC improved/developed and operationalized											
2.1 Development of payment scheme (i.e. recreational, wellness)						19,980		19,980		19,980	
2.1.1. Preparation for the Development of Payment Scheme for Ecosystem Services Meals for 15 participants a USD 60/Meeting	60	Number of Meetings	8			480		480		480	
2.1.1 Rationalizing/ Improving/ Modifying/ Developing PES for NAPWC	16,000	unit	1			16,000		16,000		16,000	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Hiring of Assisting Professional to develop Payment Scheme for ecosystem services for NAPWC											
2.1.3.. Conduct of consultation workshops Meals and accommodation for 25 participants at USD1,750/day	1,750.00	No	1			1,750.00		1,750.00		1,750.00	
2.2 Forge partnership from local people, various government agencies, and other stakeholders as part of the sustainability mechanism						12,876		6,438	6,438	12,876	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
2.2.1 Conduct of consultation meetings; meals for 30 pax at USD750/day and lease of venue at USD625/day for 2 days	2,750	No	4			11,000		5,500	5,500	11,000	There will be a four (4) consultation meetings (2 days each) to be conducted. Costing include meals and venue only, no accommodation.
2.2.2 Forging of Partnership Agreement; workshop for 30 participants at USD938/day	938	No	2			1,876		938	938	1,876	
2.3. Institutionalization and establishment of PES mechanism*	2,000	No	1			2,000			2,000	2,000	Phil-counterpart
<i>Sub-total (Output 2)</i>						34,856		26,418	8,438	34,856	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks	
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost		
<i>Total (Objective 1)</i>							106,086	240	97,408	8,438	106,086	
Objective 2 To assimilate nature in an urban setting and establish a healing forest and experiential learning promoting the contribution of forests and biodiversity to human health and well-being												
Output 3: Arboretum improved and facilities established and forest healing and experiential learning programs developed												
3.1 Improvement of an arboretum and facilities for forest health experiential learning						459,781	51,250	376,519	32,013	459,781		
3.1.1 Review and enhancement of the NAPWC Site Development Plan; meals and accomodation for 30 participants, USD 2100/day	2100	days	2			4,200			4,200	4,200		
3.1.2 Procurement of Planting Materials	100	no	100			10,000		10,000		10,000		
3.1.3 Improvement/Construction of Plant Nursery*	62,500	unit	1			62,500	31,250	31250		62,500	Phil-counterpart	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
3.1.4 Planting of saplings/trees; contract cost to include earth balling of trees, hauling of trees from origin to destination and aftercare and maintenance for 3 months	125	no	100			12,500		12,500		12,500	Fertilizers, pesticides and cost for replanting is included under the "aftercare and maintenance"
3.1.5 Establishment and improvement.	250,000	unit	1			250,000		250,000		250,000	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Establishment of facilities; contract cost to include facilities for forest bathing area/area for meditation (transorm peninsula to islet) flat rocks/beds as water-inundated walkway, tree familiarization and entry pad, water fall feature											
3.1.6 Production and Installment of signages and markings; contract cost to include production and installment of signages and markings	15,625.00	unit	1			15,625		7,813	7,813	15,625	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
3.1.7 Expansion of the current Arboretum (contract cost to include demolition of the BMB Materials Recovery Facility and establishment in new location)*	44,956	unit	1			44,956		44,956		44,956	Phil-counterpart
3.1.8. Maintenance and protection of arboretum and facilities*	20,000.00	year	3			60,000	20,000	20,000	20,000	60,000	Phil-counterpart
<i>Sub-total (Output 3) new proposal</i>						459,781	51,250	376,519	32,013	459,781	
Output 4: Skills and capacities of personnel developed											
4.1 Undertake needs and capacity assessment						5,688		5,688		5,688	Contract includes CNA tool preparation, trainings and analysis of data
Assessing the needs, capacities and competencies of personnel	781	Months	2			1,563		1,563		1,563	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Workshop for 30 participants x 3 days at USD1,375/day	4,125	no	1			4,125		4,125		4,125	
4.2 Conduct of series of training programs related to forest health and experiential learning model						18,755		6,585	12,170	18,755	
Training program for 20 participants x 5 days at USD917/day	4,585	no	3			13,755		4,585	9,170	13,755	
Hiring of Assisting Professional to cover five (5) training programs; training to cover 5 days each at USD200/day	1,000	no	5			5,000		2,000	3000	5,000	Justification: No expertise

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
4.3 Exchange of knowledge and learnings from the experiences of expert countries on forest healing and establishment of arboretum						45,880		22,940	22,940	45,880	
4.3.1. Learning exchange visits to other expert countries, 15 pax for first visit and eight (8) pax each for the next two (2) visit. Estimated of five (5) days/ four (4) nights To cover visit to expert country and visit to Philippines						45,880		22,940	22,940	45,880	Tentative countries to be visited will be Korea and Philippines (hosting of visit)
a) Airfare (roundtrip) at USD500/pax	500	pax	31			15,500		7,750	7,750	15,500	
b) DSA; USD35/pax/day	175	pax	31			5,425		2,713	2,713	5,425	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
c) Accommodation; USD120/pax/day	480	pax	31			14,880		7,440	7,440	14,880	
d) Meals; USD35/pax/day	175	pax	31			5,425		2,713	2,713	5,425	
e) Local transportation (rental); USD30/pax/day	150	pax	31			4,650		2,325	2,325	4,650	
<i>Sub-total (Output 4)</i>						70,323		35,213	35,110	70,323	
<i>Total (objective 2)</i>						530,104	51,250	411,732	67,123	530,104	
Objective 3 To develop policy recommendations on the enhancement of policies relevant to urban forest development and protection											
Output 5: Policies and/or guidelines relevant to urban forest development and protection developed											
5.1 Conduct of policy/ guidelines writeshops *						18,022			18,022	18,022	PHL in-kind contribution
Formulating policies and/or guidelines	10,000	pax	1			10,000			10,000	10,000	Phil-counterpart
Workshop for 25 participants x 3 days at USD1,146/day*	3,438	no	1			3,438			3,438	3,438	Phil-counterpart

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
5.2 Conduct of policy/guidelines consultation workshops; 25 participants x 2 days at USD1,146/day*	2,292	no	2			4,584			4,584	4,584	Phil-counterpart
5.3 Endorsement of draft policies/ guidelines to the DENR Secretary and council *						-				-	
<i>Sub-total (Output 5)</i>						18,022			18,022	18,022	
<i>Total (objective 3)</i>						18,022			18,022	18,022	
Other Operation Activities											
6. Conduct of inception meeting	6,000	no	1			6,000	6,000			6,000	
7. Conduct of PSC meetings	1000	no	9			9,000	1000	4000	4000	9,000	
8. Annual performance and management review						17,500	4,644	6,428	6,428	17,500	
a) Airfare (roundtrip) at USD350/pax	350	no	2			2,800		1400	1400	2,800	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
b) DSA; USD35/pax/day for 2 days	70	no	2			560		280	280	560	
c) Local transportation (rental)	210	unit	1			840	210	315	315	840	
d) Meals and accommodation for 20 pax at USD1,662.50/day for 2 days	3,325	no	4			13,300	4,434	4,433	4,433	13,300	
9. Hiring of project staff						49,734	5,310	22,212	22,212	49,734	
Technical Officer; USD500/for Year 1; USD733/month Year 2 & 3	733	pax	2			38,184	3,000	17,592	17,592	38,184	Note: For Year 1, only 6 months for the Technical Officer

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Administrative and Finance Officer; USD385/month	385	pax	1			11,550	2,310	4,620	4,620	11,550	Note: For Year 1, only 6 months for the Administrative and Finance Officer
<i>Sub-total (Other Operation Activities)</i>						82,234	16,954	32,640	32,640	82,234	
Project Management and Supervision											
10. Management support to operations						37,700	3,500	17,100	17,100	37,700	
Office supplies	3,100.0	unit	2			6,200		3,100	3,100	6,200	
Coordination meetings	1,000	No. of Meeting	24			24,000	2,000	11,000	11,000	24,000	
Fuel and utilities	1500	semi-annually	5			7,500	1500	3000	3000	7,500	
11. Procurement of office equipment						33,389		33,389		33,389	
Desktop computer	1,500	unit	3			4,500		4,500		4,500	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Printer	1,000	unit	3			3,000		3,000		3,000	
Laptop	2,000	unit	4			8,000		8,000		8,000	
DSLR Camera	3,909	unit	1			3,909		3,909		3,909	
GPS device	1,500	unit	2			3,000		3,000		3,000	
Drone	3,900	unit	2			7,800		7,800		7,800	
Drone External Monitor	1,500	unit	2			3,000		3,000		3,000	
Wireles rechargeable lapel microphone	60	unit	3			180		180		180	
12. Monitoring and evaluation						6,408		3,204	3,204	6,408	
Domestic travel duty/ travelling allowance	3,204	Monitoring	2			6,408		3,204	3,204	6,408	
<i>Sub-total (PMS)</i>						77,497	3,500	53,693	20,304	77,497	
External Audit						3,000			3000	3,000	
<i>Sub-Total (EA)</i>						3,000			3,000	3,000	
Sub-Total						816,943	71,944	595,473	149,527	816,943	
Program Support (12% of subtotal) <i>Financial Regulations 3.4</i>						75,535				75,535	

[Attachment-A]

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantit y 1	Uni t 2	Quantit y 2	Total Cost	Budget Allocation by Year (USD) – TOTAL				Remarks
							FY Year 1 (2023)	FY Year 2 (2024)	FY Year 3 (2025)	Total Cost	
Grand Total						892,478	71,944	595,473	149,527	892,478	

SECTION D. IMPLEMENTATION ARRANGEMENTS

1. Implementation Agreements

1.1. Organizational Structure

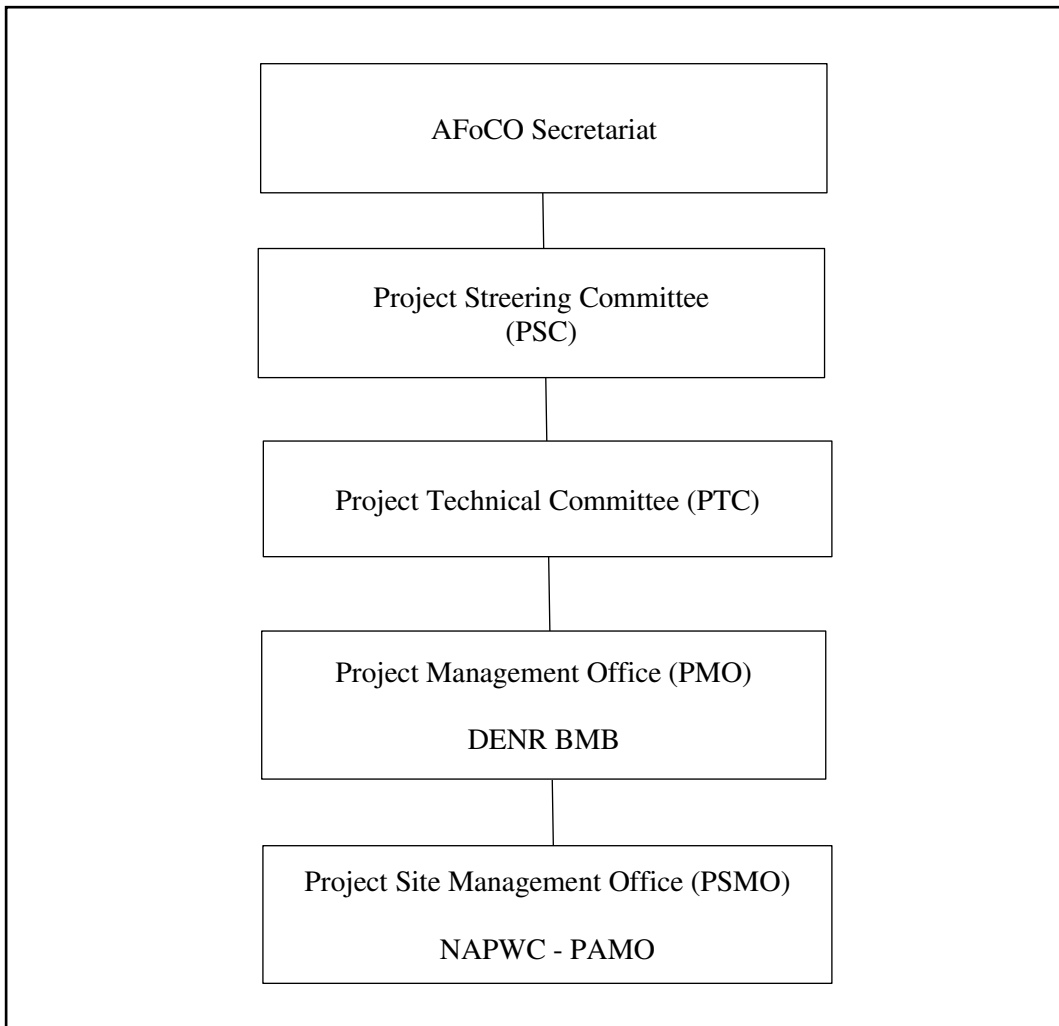


Figure 2. Organizational Chart of the AFoCO-DENR FRESH Project

The Department of Environment and Natural Resources through the and Biodiversity Management Bureau (BMB) and Forest Management Bureau (FMB), with support from the Foreign Assisted and Special Projects Services (DENR-FASPS), shall lead this Project Implementation. The BMB Director will take the responsibility of the project, which will be supported by the AFoCO Focal Person. The Project shall involve various DENR Offices/Bureaus/Services, as follows:

The **Biodiversity Management Bureau** is the primary government agency that provides technical guidance and recommends policies, guidelines, rules and regulations for the establishment and management of the National Integrated Protected Areas System. It also recommends policies and programs for the establishment and management of protected areas, conservation of wildlife, promotion and institutionalization of ecotourism, management of coastal

biodiversity and wetlands ecosystems, conservation of caves and caves resources, and management of such protected areas as the Ninoy Aquino Parks and Wildlife Center.

The **Forest Management Bureau of the Department of Environment and Natural Resources** is the primary government agency that provides technical guidance for the effective protection, development, and conservation of forest lands and watersheds in the Philippines. It also recommends policies and programs towards the achievement of sustainable forest management, based on science and principles of good forest governance.

The **Foreign-Assisted and Special Projects Service (FASPS)** of the DENR oversees, coordinates and facilitates the preparation, implementation and evaluation of the DENR's foreign assisted and special projects.

The **Policy and Planning Service (PPS)** of the DENR coordinates and facilitates the preparation, implementation and evaluation of the DENR's programs, projects, and activities.

1.2 Management Arrangement

There shall be two (2) layers of management arrangements: the Project Steering Committee (PSC) and the Project Technical Working Group (PTWG). The PSC shall serve as the decision-making group of the Project, that will provide guidance, authority and ensure project progress. The committee is chaired by the DENR Undersecretary for Policy, Planning and International Affairs, and co-chaired by the Undersecretary for Legal and Administration (or Supervising Undersecretary for BMB), assisted by the Assistant Secretary for Policy, Planning, and Foreign Assisted and Special Projects. Members consist of the Directors of the secondary and tertiary stakeholders.

1.2.1. Project Steering Committee (PSC)

A. Composition

Chairperson : Undersecretary for Policy, Planning and International Affairs (PPIA), DENR
Co-Chair : Undersecretary for Legal and Administration (or Supervising Undersecretary for BMB)

Members :

- Director, DENR – Foreign-Assisted and Special Projects Services (FASPS)
- Director, Forest Management Bureau (FMB)
- Director, Biodiversity Management Bureau (BMB)
- Regional Executive Director, DENR – National Capital Region
- AFoCO Secretariat
- Third Party Expert (consider Academe, Dr. Robby Cereno; or PALA; DOT; PIEP)

B. Functions of the PSC

The PSC shall be the supervisory and decision-making body that will provide over-all direction, guidance and oversight for the effective implementation of the project. Specifically, the PSC shall perform the following roles and responsibilities: shall perform the following roles and responsibilities:

1. Provide strategic directions and guidance for implementation of the project towards achievement of project outputs and outcomes;
2. Approve annual work-plans and budgets, and as needed, any essential deviations from the original plan;
3. Oversee prudent and efficient use of project funds and other resources; and,
4. Provide guidance and support for the resolution of project-related concerns, issues and/or challenges.

The PSC shall meet at least once a year or as deemed necessary.

1.2.2. Project Technical Committee (PTC)

A. Composition

- Chairperson : Director, DENR – BMB
Co-Chair : Director, DENR – FMB
Members :
- Director, DENR - Policy and Planning Services (PPS)
 - AFoCO Focal Person
 - Representative, DENR – FASPS
 - Representative, National Economic Development Authority (NEDA)
 - Representative, Department of Tourism (DOT) – National level (national officials)
 - Representative, Local Government of Quezon City
 - Representative, DENR – NCR

B. Functions of the PTC

PTC is an inter-agency body which recommends policy direction, measures, and safeguards and shall perform the following specific functions:

1. Provide technical guidance, inputs and recommendations to the PMU as regards the project implementation;
2. Review and evaluate work plan and budgets, for endorsement to the PSC, in the event that a high-level decision and approval are needed;
3. Review project's progress, mid-term review and evaluation reports, and make recommendations for follow-up actions for timely and quality implementation;

4. Serve as venue for communicating project learnings and good practices to the respective sectoral agencies to enhance sustainability; and
5. Provide guidance on post-project sustainability, institutional and financial arrangements, keeping in view the recommendations of external reviews.

The PTC shall meet twice a year (once every semester) or as the Chairperson may deem necessary.

1.2.3. Project Management Office (PMO)

A PMO shall be created at the BMB under the overall supervision and guidance of the BMB Director (Project Director), in close coordination with the AFoCO Focal Person.

A. Composition

- Project Director
- AFoCO National Focal Person
- Project Manager/NAPWC PASu
- Project Support Staff

B. Functions of the PMO

The PMO shall be responsible for the overall management and coordination of the project. Specifically, the PMO shall perform the following roles and responsibilities:

1. The PMO shall plan, direct, coordinate and lead the activities of the project;
2. Provide project management guidance, systems, tools and standards in project evaluation;
3. Perform periodic project monitoring and evaluation;
4. Submit reportorial requirements to concerned oversight bodies and/or agencies;
5. Provide guidance and assistance in organizing activities, workshops and training courses of the Project;
6. Act as secretariat to the PSC and PTC; and
7. Facilitate coordination activities with the AFoCO Secretariat, and other agencies involved in the project.

1.2.4. Project Site Management Office (PSMO)

The PSMO shall be created at the Ninoy Aquino Parks and Wildlife Center Management Office headed by the Protected Area Superintendent (PASu), as the Project Site Manager. Specifically, the PSMO shall perform the following specific roles and responsibilities:

PASu – the Project Site Manager.

The PAMO shall serve as the Project Site Management Office – the Park Attendants – factor

1. Oversee and be responsible for the day-to-day operations of the project;
2. Ensure the timely implementation of project activities and target deliverables;
3. Provide assistance in organizing activities, including workshops, training courses and turn-over ceremonies;
4. Work in close collaboration with the assigned AP in implementing the project;
5. Prepare progress reports and records of activities implemented and accomplished including relevant technical documents, recommendations and financial and liquidation reports. Such reports shall be endorsed by the PASu, for further endorsement to the BMB Director as Project Director up to the PSC;
6. Assist in the consolidation of all documents and reports for the packaging of the project completion report (PCR) and in preparation for project audit and external evaluations; and
7. Maintain record of activities implemented and accomplished including technical documents, recommendations and consultancy reports.

1.3. Staff Resource Plan

The Project Technical Working Group (PTWG) shall be supported by the NAPWC PASu. In addition, the Project Site Management Office (PSMO) shall be led by the PASu of the NAPWC, as the Project Site Manager. The PASu shall be supported by hiring two (2) Technical Staff, while one (1) Administrative and Finance Staff will be reporting at the BMB as most of the procurement and financial transactions shall be done. The Project Site Manager shall have the following duties and responsibilities:

1. Overall supervision and management of project site office, staff and financial matters including direct supervision at the site with partner community and other stakeholders to ensure timely, efficient and effective implementation of project activities in their respective countries;
2. Ensure the timely implementation of the activities identified in the Project document in their respective site;
3. Develop Terms of Reference (TOR) for the procurement of services of consultants/firms/assisting professionals including TORs for the construction/establishment of facilities.
4. Review/Prepare necessary activity design and other documents for the conduct of the various workshops, writeshops and meetings;
5. Prepare and submit periodic accomplishment reports of the project to the Project Technical Working Group;
6. Maintain record of activities implemented and accomplished including technical documents, recommendations and consultancy reports;
7. Ensure managerial and financial accountability in accordance with the Project criteria and existing operational guidelines of the AFoCO.
8. Submit budget request, financial reports and liquidations based on the approved Work and Financial Plan (WFP); and

9. Perform other duties and responsibilities as may be deemed as appropriate in implementing the Project.

2. Reporting, Monitoring and Evaluation Arrangements

2.1. Monitoring and Evaluation

Monitoring and Evaluation (M & E) is an embedded concept and constitutive part of the project. Monitoring activities will be done to determine if the project is proceeding based on the identified activities and schedules. While during an evaluation, information from previous monitoring activities will be used to understand the ways in which the project should proceed and whenever adjustments have to be taken. Further, evaluation process will be an analysis or interpretation of the collected data which delves deeper into the relationships between the results of the project, the effects produced by the project and the overall impact of the project

The Project Site Management Office, being responsible for the direct supervision over the partner community and other stakeholders shall conduct monitoring on a regular basis (weekly or day-to-day as need arises) and shall prepare reports pertaining thereto, among other documentary requirements. On the other hand, the PTWG shall conduct periodic monitoring (quarterly or whenever necessary). Further, PTWG shall undertake project evaluation internally.

To ensure effective and efficient monitoring of project implementation, performance indicators as well as process indicators for milestone accomplishments shall be based on the Project logical framework.

2.2. Reporting

The project will follow the standard in reporting for AFoCO and all documents and reports will be done in English language. The reporting flow shall be in consonance with the delineation of functions of the implementing entities/stakeholders as embodied in the organizational structure. Reporting submissions are as follows:

1. The PSMO will submit regular progress reports composed of activity reports (e.g. monitoring, capacity development activities etc.) and financial status reports (e.g. balance sheet, statement of cash flow and statement of expenditures) on a quarterly basis to the PTWG. Nevertheless, reports on specific activities, such as, but not limited to, training/workshops and project monitoring, along with the corresponding expenses, shall be prepared and submitted to the PTWG within one (1) month after the completion of each activity.
2. As the outputs of project implementation, all workshop materials/technical documents or reports will be produced and disseminated.
3. The PTWG shall review and evaluate the accomplishments and deliverables of the Project. Subsequently, PTWG shall endorse the reports to the AFoCO Secretariat and other oversight agencies, which, if necessary, evaluation and recommendations for the approval of the PSC shall be incorporated therein.

3. Environmental and Social Risk Management

Table 5. Risk Management

Potential Risk(s)	Mitigation Measures
<p>Securing the approval of the Special Presidential Authority from the Office of the President. It is one of the challenges in some of the foreign assisted projects in the country that caused the delayed project implementation.</p> <p>High</p>	<p>Constant follow-up and coordination activities with the Office of the President for the issuance of the SPA, once the project is approved by the donor institution.</p>
<p>Political stability and will Political will and support are important for any activities in the field level.</p> <p>Low</p>	<p>Involve the local government unit and keep them informed about the project. Forge partnership with them in the project implementation.</p>
<p>Community risk Most times, local people/residents are reluctant to change and to adopt new technologies</p> <p>Medium</p>	<p>Awareness program Encourage the people to work hand-in-hand with the government through involvement and possible incentives.</p>
<p>Financial Risk Private financial institutions are reluctant to approve financial assistance in environment related developments</p> <p>Medium</p>	<p>Government to assist the local government units and other stakeholders in securing financial loans</p>
<p>Health Risk The risk that is provided by the pandemic of Coronavirus Disease 2019 (COVID-19) and if the vaccine for the disease is still absence when the Project will be implemented</p> <p>High</p>	<p>Awareness program for its prevention and ensure health requirements in every Project activity e.g. social distancing, wearing of mask, among others.</p>
<p>Environmental Risk</p> <ul style="list-style-type: none"> • The risk provided by physically culling out exotic tree species in order to transform the Park into an Arboretum of Philippine Native Trees • Impacts posted by the development of NAPWC <i>assimilating nature</i> for forest health experiential learning. Forest healing/bathing is an example of an ecotourism activity. 	<p>NAPWC will endeavor to secure a Certificate of Non-Coverage (CNC) from the Environmental Management Bureau – NCR given that upon self-screening, both the establishment of an Arboretum and ecotourism are not in the list of non-environmentally critical projects in environmentally critical areas. (The establishment of Arboretum will not fall under reforestation as NAPWC is not originally reforested.) At the least, preparation of a Project Description Report (PDR) may be required.</p>

To ensure the Environmental and Social Risks and Management, this will be embedded in the Terms of Reference (TOR) of the Assisting Professionals (AP). Further, during the mid-term and terminal period of the Project, the Project will hire AP or commission other government agencies and/or DENR

[Attachment-A]

offices such as the Environment Management Bureau (EMB) to conduct the Environment and Social Performance Evaluation.

4. Sustainability Mechanism

The project site, NAPWC, is a classified National Park with a Management Office headed by a PASu who supervises the day to day administration and management of the Park. NAPWC also has a Management Board, whose fundamental function is to oversee the management of the Park. The existence including the powers and functions of these two entities are mandated by the NIPAS Act, as amended by the Expanded NIPAS Act of 2018, which is a specific Law.

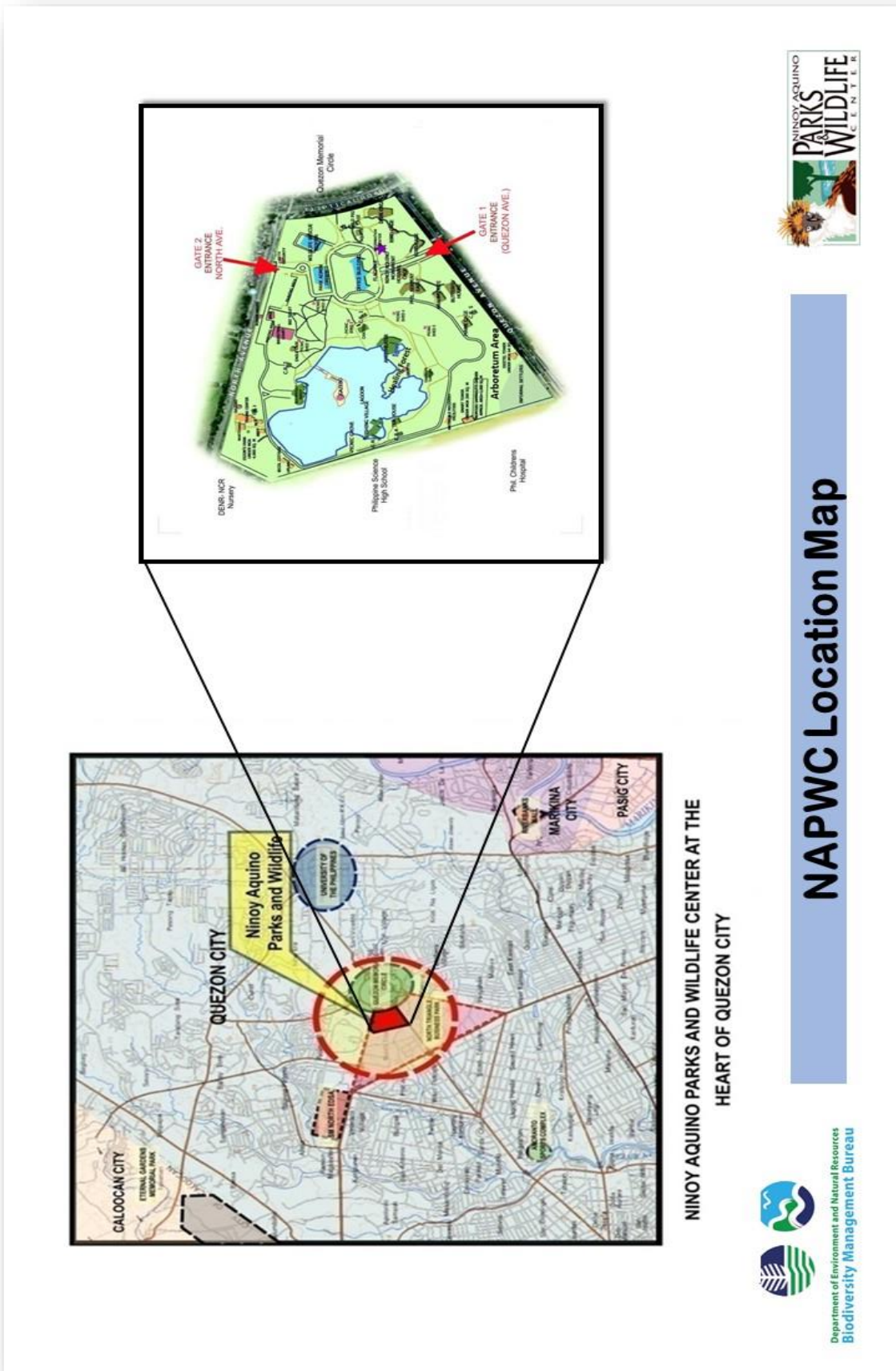
As such, sustainability of the Project is ensured. More so, that programs and projects towards these same goals and objectives are being initiated and implemented if not for the lack of funding support from the National Government.

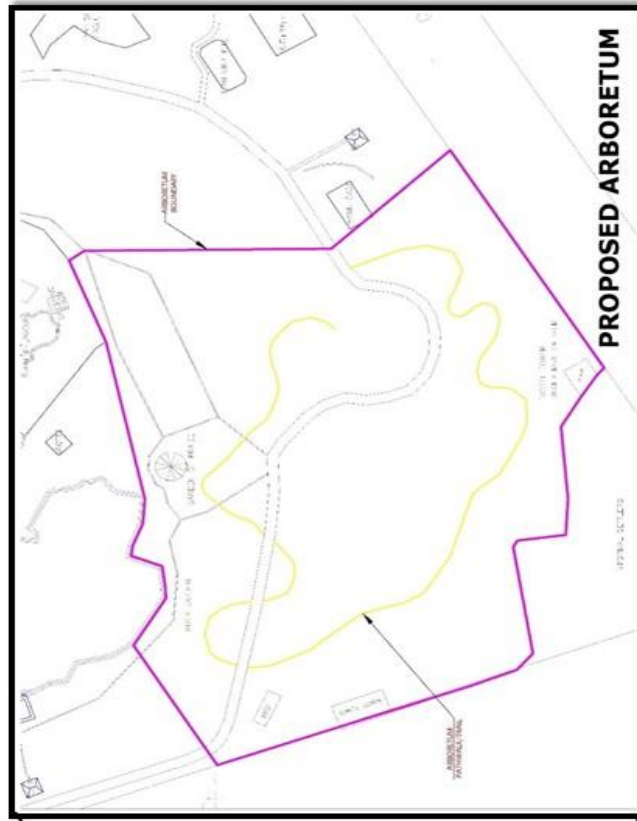
NAPWC had established a Trust Fund referred as the Integrated Protected Area Fund (IPAF) for purposes of financing the projects and sustaining NAPWC's operations. Any income generated shall accrue to the IPAF.

Further, the BMB has a new program on urban biodiversity wherein the NAPWC is the pilot site. This is in *partnership* with the Forest Foundation Philippines (FFP), the Philippine Association of Landscape Architects (PALA) and Philippine Institute of Environmental Planners (PIEP). The BMB's partnership with FFP et.al is focused on a) research; b) formulation of forest healing/bathing simulation laboratory through provision of technical specifications, requirements and directives for the design; as well as c) policy development taking into consideration land use, zoning and applicable codes and regulations towards the development of areas for forest healing/bathing. and not on the actual physical development/improvement of a forest bathing/healing area for NAPWC. This BMB project, together with the proposed project for AFoCO funding support, will be complementary, ensuring sustainability of both projects.

ANNEXES

Annex A. Location Map of Ninoy Aquino Parks and Wildlife Center and its Arboretum.

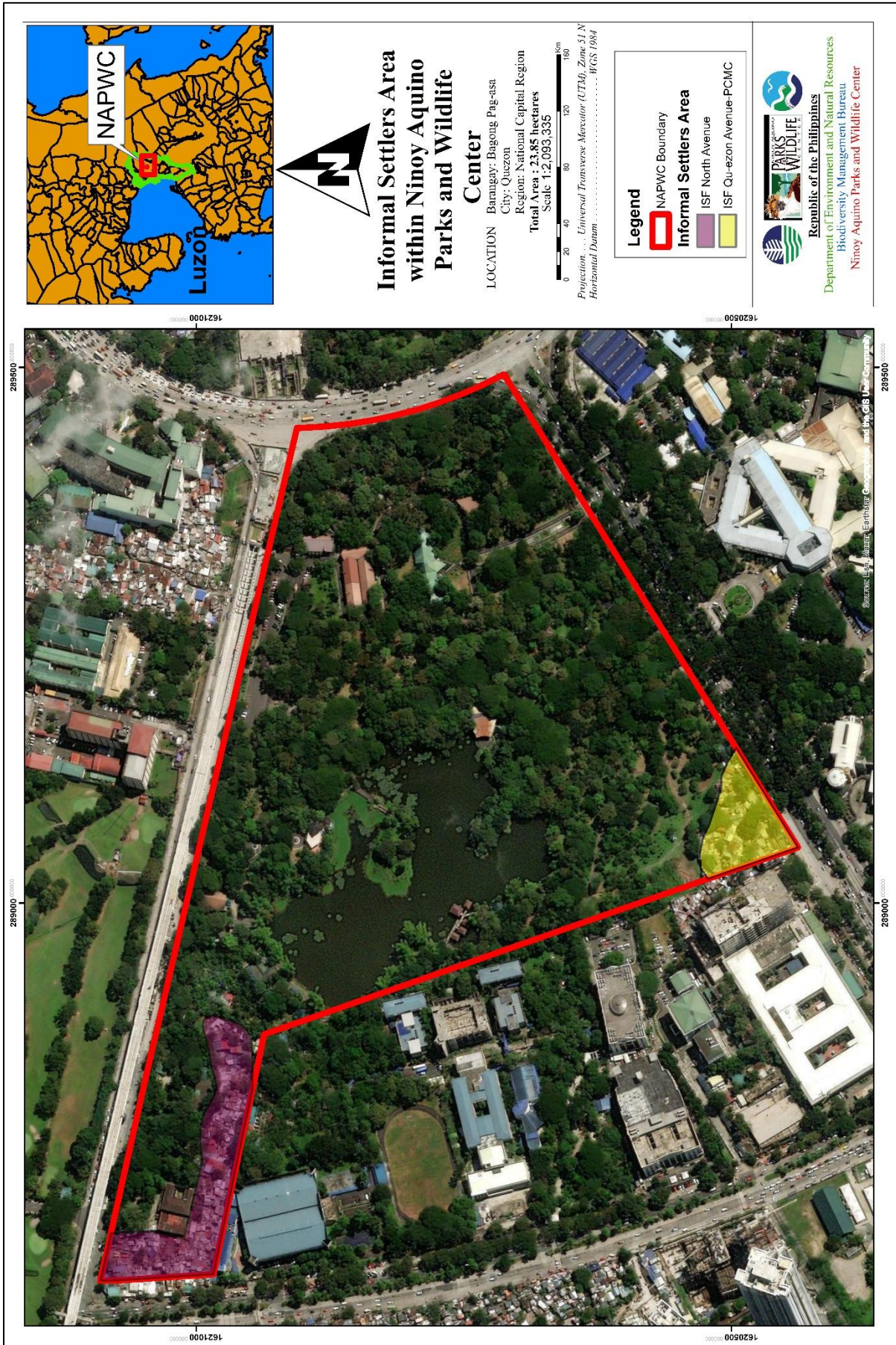




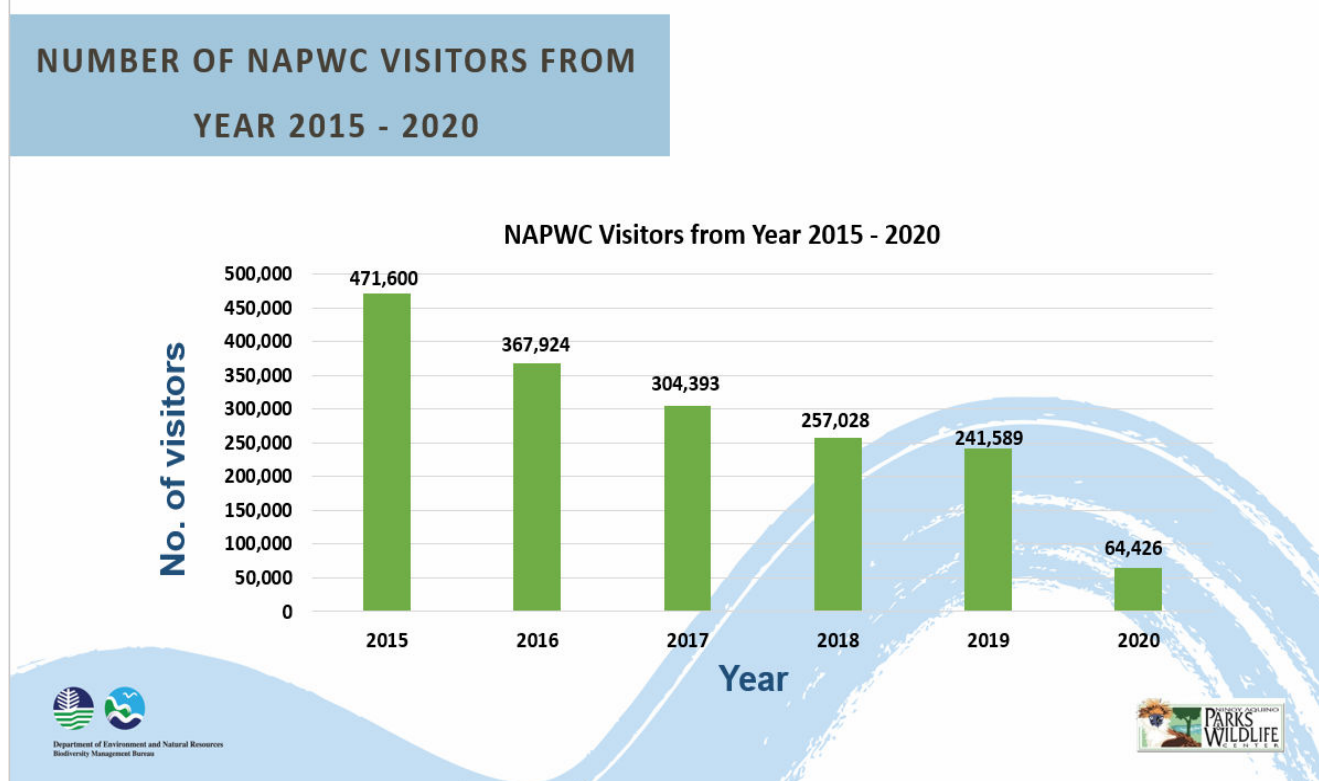
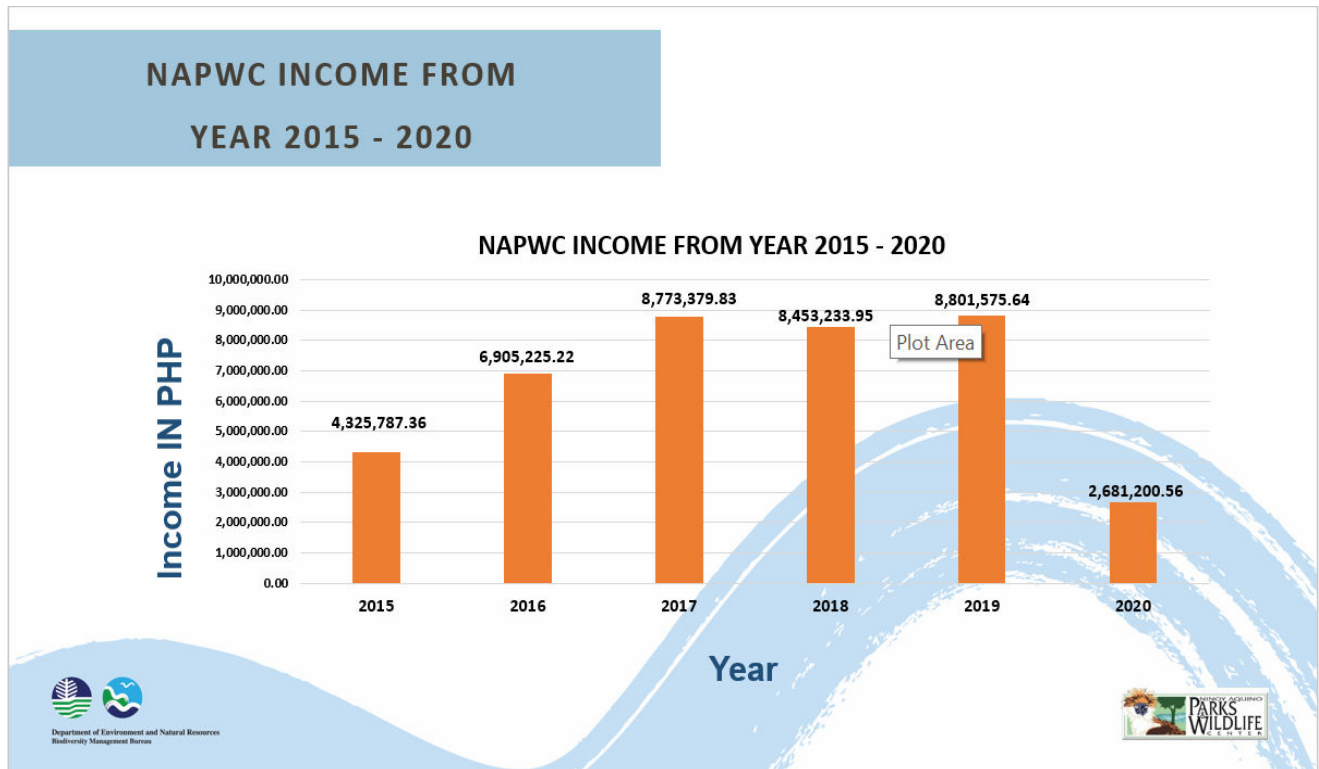
NAPWC Arboretum of Philippine Native Trees



Annex B. Location Map of Informal Settlers Families within NAPWC



Annex C. Number of NAPWC Visitors and Income from Year 2015-2020



Annex D. Personnel Attribution for the implementation of the AFoCO Project in NAPWC

Office/Personnel	Salary per month (USD)	Projected No. of days devoted for the Project per month	Personnel-time cost attribution per month	Personnel-time Cost Attribution
Forest Management Bureau				
Director	2,000.00	0.5	45.00	2,115.00
Assistant Director	1,800.00	0.5	41.00	1,927.00
AFoCO Focal Person	1,200.00	2.5	136.00	6,392.00
Project Manager	800.00	5.5	200.00	9,400.00
Deputy Project Manager	800.00	5.5	200.00	9,400.00
Planning Officer	800.00	2.5	91.00	4,277.00
Technical Support (for development of arboretum)	800.00	3	109.00	5,123.00
Technical Support (for development of programs)	800.00	3	109.00	5,123.00
Technical Support (for development of policies/guidelines)	800.00	3	109.00	5,123.00
Admin and Finance Officer	800.00	2.5	91.00	4,277.00
Property Officer	800.00	2.5	91.00	4,277.00
Budget Officer	800.00	0.5	18.00	846.00
Procurement Officer	600.00	1	27.00	1,269.00
Cashier	400.00	2.5	45.00	2,115.00
Sub-Total				61,664.00
DENR Central Office				
USec for Policy, Planning and International Affairs	2,400.00	0.5	55.00	2,585.00
ASec for Policy, Planning and Foreign Assisted and Special Projects	2,400.00	0.5	55.00	2,585.00
Sub-Total				5,170.00
Foreign Assisted and Special Projects Service				
Director	2,000.00	0.5	45.00	2,115.00
Chief, Project Management Division	1,600.00	0.5	36.00	1,692.00
Chief, Project Monitoring and Evaluation Division	1,600.00	0.5	36.00	1,692.00
Sub-Total				5,499.00
DENR-BMB				
Director	2,000.00	0.5	45.00	2,115.00
Assistant Director	1,800.00	0.5	41.00	1,927.00
	1,600.00	0.5	36.00	1,692.00

Office/Personnel	Salary per month (USD)	Projected No. of days devoted for the Project per month	Personnel-time cost attribution per month	Personnel-time Cost Attribution
PASu, Ninoy Aquino Parks and Wildlife Center				
Chief, Accounting Unit	1,600.00	0.5	36.00	1,692.00
Chief, Budget Unit	1,600.00	0.5	36.00	1,692.00
Chief, Cashier Unit	1,600.00	0.5	36.00	1,692.00
Site Manager	800.00	2.5	91.00	4,277.00
Technical Support	800.00	2.5	91.00	4,277.00
Sub-Total				19,364.00
GRAND TOTAL				91,697.00