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PROPOSED CITY ORDINANCE NO. ___
Series of 2023

AN ORDINANCE APPROVING THE "REVISED ENVIRONMENT CODE OF THE CITY OF BACOOR", IMPOSING PENALTIES FOR VIOLATIONS HEREOF, AND ESTABLISHING VARIOUS PROGRAMS, PLANS, AND PROJECTS THAT PROMOTES ENVIRONMENT PROTECTION.

Authored by:

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Sponsored by:

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ARTICLE I. INTRODUCTION

Section 1. Title. This ordinance shall be known as "***The Revised Environment Code of the City of Bacoor***". It shall be referred to henceforth in this Ordinance as the "Code".

Section 2. Purpose. The primary purpose of this Code is to provide a comprehensive set of policies, regulations, and mechanisms aimed at promoting sustainable development, environmental preservation, and enhancement, ensuring the well-being of present and future generations of Bacoor residents.

Section 3. Scope. This Code covers the following:

A) With respect to geographic areas, this Code covers all lands, waters, and air within the territorial jurisdiction of Bacoor, including marine ecosystems, riverbanks, wetlands, open spaces, and urban areas.

B) With respect to sectors, this Code covers all public and private enterprises, non-governmental organizations (NGOs), and all residents of Bacoor.

C) With respect to projects, this Code covers all projects of the City Government of Bacoor and all projects and partnerships in which the City Government of Bacoor is a party.

Section 4. Legal Basis. This Code was formulated and shall be interpreted and implemented in consonance with the following:

A) Article XII of the 1987 Constitution, with emphasis on Section 1 thereof, which enshrines the principle that the utilization of natural resources must be for the benefit of humankind.
B) Section 16, Article II of the 1987 Constitution, insofar as it establishes the right to a healthy and balanced ecology.
C) The Supreme Court Case of *Oposa v. Factoran* (G.R. No. 101083 July 30, 1993), insofar as it affirms the principle of intergenerational equity.
D) The Philippine Environmental Code of 1977 (Pres. Decree No. 1152), in its entirety, but with particular emphasis on the parameters for determining the adverse impacts of projects on the environment.
E) The Environmental Impact Statement System (Pres. Decree No. 1586);
F) Presidential Proclamation No. 2146 (1981) insofar as it defines when an industry may be considered an environmentally critical project or an environmentally critical area.
G) The Revised Procedural Manual for the Philippines Environmental Impact Statement System (PEISS), which shall be applied in a suppletory manner to the City Environmental Impact Assessment System outlined in Article III of this Code.
H) Republic Act No. 7160 or the Local Government Code of 1991, especially with respect to Sections 26 and 27, which requires the national government and national agencies to conduct meaningful consultations with local government

units (LGUs) and acquire the approval of the Sanggunian concerned prior to the implementation of a project.

I) The Philippine Disaster Risk Reduction Management Act of 2012 (Republic Act No. 10121);
J) The Climate Change Act of 2009 (Republic Act No. 9729).
K) Presidential Decree No. 1084 (1977), Executive Order No. 525 (1979), and Executive Order No. 380 (2004), which establish the Philippine Reclamation Authority and govern the reclamation of lands.
L) The Civil Code of the Philippines, especially in relation to its provisions on nuisance and easement, especially Article 638 thereof, which refers to waterways.
M) The Ecological Solid Waste Management Act of 2003 (Republic Act No. 9003).
N) The Philippine Mining Act of 1995 (Republic Act No. 7942).
O) People's Small Scale Mining Act of 1991 (Republic Act No. 7076).
P) The Fisheries Code (Republic Act No. 8550, as amended by Republic Act No. 10654).
Q) The Clean Air Act of 1999 (Republic Act No. 8749).
R) The Philippine Clean Water Act of 2004 (Republic Act No. 9275).
S) Marine Pollution Decree of 1976 (Presidential Decree No. 979).
T) The Toxic Substances and Hazardous Nuclear Wastes Act (Republic Act No. 6969).
U) Philippine Green Jobs Act of 2016 (Republic Act No. 10771).
V) The Forestry Code (Presidential Decree No. 705); and
W) Any other applicable Philippine environmental laws not enumerated herein, whether in force at the time of the Effectivity of this Code or passed later.

ARTICLE II. RULES OF INTERPRETATION AND DECLARATION OF PRINCIPLES

Section 1. Rules of Interpretation. In interpreting this Code, the following general rules must be followed:

A) **Literal Interpretation (Plain Meaning Rule)**: The words of a statute or ordinance should be given their ordinary and usual meaning, and interpreted in their grammatical and natural sense, unless such interpretation leads to an absurdity or inconsistency.

B) **Intent of the Sanggunian**: Where the literal interpretation is ambiguous or unclear, the intent behind the legislation as enunciated in Article 1, Section 2 and in the following Sections of this Article should be considered.

C) **Harmonious Construction**: All parts of this Code should be read together and harmonized to avoid any conflict or inconsistency between them.

D) **Specific Over General:** Where a specific provision and a general provision conflict, the specific provision typically takes precedence, as it is deemed as an exception to the general rule.

E) **Presumption Against Injustice or Absurdity**: Laws and ordinances should not be interpreted in a manner that leads to unjust, absurd, or unreasonable outcomes.

F) **Construing Penal Provisions Strictly**: Provisions that prescribe penalties or sanctions should be interpreted strictly against the government and liberally in favor of the accused.

G) ***Proviso* Interpretation:** A *proviso*, usually denoted by words or phrases such as "*provided"* or "*provided, further"* and the like, is generally understood to limit the preceding part of the Code or to qualify some aspect of it, rather than introducing a new provision.

H) Principles: Where the Code is ambiguous or allows for multiple interpretations, the interpretation to be adopted should be one that best maximizes the principles outlined in the following Sections of this Article.

Section 2. The Precautionary Principle -The City recognizes the essentiality of anticipating and preventing environmental harm. When activities have the potential to cause harm to human health or the environment, precautionary measures should be taken, even if some cause-and-effect relationships are not yet scientifically proven.

Section 3. Sustainable Development- The City upholds that development initiatives must balance economic, social, and environmental needs, ensuring that the actions of today do not compromise the capacities of future generations. Economic growth shall be pursued in tandem with environmental protection and societal well-being.

Section 4. Intergenerational Equity - The City commits to ensuring that the needs of the present generation are met without compromising the ability of future generations to meet their own needs. Natural and cultural resources shall be preserved and passed on as a legacy to succeeding generations.

Section 5. Participation and Engagement - The City believes in the active engagement of its citizens in environmental decision-making. Every resident has a stake in, and a right to, a healthy environment. Their insights and expertise shall be integrated into planning, implementation, and evaluation processes related to this Code, its Implementing Rules and Regulations, and all pertinent official orders and executive policies.

Section 6. The Polluter Pays Principle - Polluters are responsible for the environmental harm they cause and shall bear the costs of preventing, controlling, and remedying environmental damage. The City promotes the accountability of every individual and enterprise in their environmental footprint.

Section 7. Environmental Justice - Every citizen, irrespective of their economic or social status, has the right to a healthy environment. The City is committed to ensuring that environmental benefits and burdens are distributed equitably among all its residents, and no community bears an unfair share of environmental pollution.

Section 8. Ecosystem Integrity - The City will strive to maintain the health, vitality, and resilience of ecosystems, recognizing their intrinsic value and the broader benefits they provide to human well-being. Policies shall prioritize the conservation and restoration of these critical systems.

Section 9. Biodiversity Conservation - The rich diversity of life forms in Bacoor – its flora, fauna, and ecological systems – is a testament to nature's splendor. The City is dedicated to the conservation of this biodiversity, ensuring that species and habitats are protected and preserved.

Section 10. Circular Economy - The City shall develop a circular economic model, where resources are utilized efficiently, waste is minimized, and materials are recycled and repurposed. Such an economy promotes sustainability by designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.

Section 11. Equity and Access - All citizens shall have fair and equitable access to environmental resources, services, and decision-making processes. The City recognizes that the environment is a shared resource and shall ensure its equitable distribution and utilization.

Section 12. Capacity Building - To foster a deep understanding and appreciation for the environment, the City shall invest in educational and training programs. These initiatives will empower individuals, communities, and institutions with the knowledge and skills necessary to advocate for, and implement, sustainable practices.

Section 13. Adaptive Management - The City acknowledges the dynamic nature of environmental challenges and emphasizes the need for flexibility in its management approaches. Policies and actions shall be periodically reviewed and adjusted based on feedback, experience, and evolving circumstances, ensuring a continuous learning process and improvement in our environmental strategies.

Section 14. Risk Management and Mitigation - The City commits to a proactive stance on potential environmental risks and geological hazards. Comprehensive assessments will be conducted to identify, evaluate, and address potential threats. Through informed decision-making, the City shall implement strategies that minimize harmful impacts, ensuring the safety and well-being of its residents and ecosystems.

Section 15. Resilience and Robustness - Understanding the increasing frequency and intensity of environmental shocks, the City places a premium on resilience. Policies and strategies shall be crafted to bolster the ability of communities, ecosystems, and infrastructures to absorb disturbances, adapt, and recover, ensuring sustained functionality and vitality in the face of challenges.

Section 16. Transboundary Environmental Effects - The City of Bacoor recognizes its role in the larger ecological fabric. Actions and policies will be undertaken with a keen awareness of potential impacts beyond our borders. Collaborative efforts with neighboring Cities shall be pursued, ensuring shared responsibility and cooperative solutions to environmental challenges that transcend territorial limits.

Section 17. Carbon Neutral Commitment – The City of Bacoor recognizes that it is a part of the global community and that it shares in the responsibility to bring about a carbon neutral Philippines. To achieve this, the City Government shall, through its implementation of this Code, strive to carry out projects and programs that will create a balance between the amount of carbon being emitted by every person or by every human activity within the City and the amount of carbon that the City and its immediate environs are absorbing from atmosphere.

Section 18. Authority to Enter into Agreements - For this purpose, the City Mayor is authorized to enter into Agreements with other local government units and duly accredited non-governmental organizations (NGOs) for projects that aim to implement this Code. *Provided:* that the said NGOs – if based within the Philippines — must be duly accredited by the Sangguniang Panlungsod of Bacoor pursuant to the City's accreditation ordinance and policies; *provided, further:* that there are funds available for the implementation of the said Agreements, *provided, lastly:* that the said Agreements must not be contrary to law or to the provisions of this Code.

ARTICLE III. CITY ENVIRONMENTAL IMPACT ASSESSMENT SYSTEM (CEIAS)

Section 1. Definition of Environmental Impact Assessment - An Environmental Impact Assessment (EIA) is a process that involves predicting, identifying, and evaluating the likely impacts of a project, including its cumulative impacts, on the environment. These evaluations must include the construction, commissioning, operation and abandonment of a project. It also includes designing appropriate preventive, mitigating and enhancement measures addressing these consequences to protect the environment and the community's welfare.

For this purpose, the word "environment" must be broadly interpreted to include the physical, biological, and social effects of a project or undertaking. Likewise, an "impact" is to be understood as a change in the baseline condition or the existing environmental situation that is caused by the activity.

Section 2. Nature of Environmental Compliance Certificate / Certificate of Non-Coverage (ECC/CNC) - Nature of ECC and CNC Under the Philippine Environmental Impact Statement System (PEISS) P.D. 1586

Environmental Compliance Certificate (ECC) - Is a document issued by the DENR/EMB after a positive review of an ECC application, certifying that based on the representations of the proponent, the proposed project or undertaking has complied with all the requirements of the EIS System and has committed to implement its approved Environmental Management Plan, EMP to address the environmental impacts.

Environmental Impact Statement (EIS) - Document, prepared and submitted by the project Proponent and/or EIA Consultant that serves as an application for an ECC. It is a comprehensive study of the significant impacts of a project on the environment. It includes an Environmental Management Plan/Program that the Proponent will fund and implement to protect the environment.

Environmental Management Plan/Program (EMP) – Section in the EIS that details the prevention, mitigation, compensation, contingency and monitoring measures to enhance positive impacts and minimize negative impacts and risks of a proposed or undertaking.

ECC VALIDITY - ECC is valid through out the entire project lifetime provided:
1. There is no significant project expansion
2. There is no change in technology
3. There is no change in location
4. Project was implemented within five (5) years from the date of issuance

Certificate of Non-Coverage (CNC) – A certification issued by the EMB certifying that, based on the submitted project description, the project is not covered by the EIS System and is not required to secure an ECC.

Section 3. Authority of the City Mayor - The City Mayor, upon recommendation from the City Environment Service Department (CESD), holds the power to declare the existence of Environmentally Critical Projects in Bacoor (ECPB) and determine the specific locations of Environmentally Critical Areas in Bacoor (ECAB) within the jurisdiction of Bacoor.

Section 4. Definition and Requisites for ECPBs and ECABs -

A) ***Environmentally Critical Projects in Bacoor (ECPBs)*** refer to projects that have high potential to cause significant negative impacts to the environment due to their nature, scale, or location. These include, but are not limited to:

   a) Heavy industries, such as:

      i) Non-ferrous metal industries

      ii) Iron and steel mills

      iii) Petroleum and petro-chemical industries including oil and gas

      iv) Smelting plants

   b) Resource Extractive Industries, such as:

      i) Mining and quarrying projects

      ii) Fishery projects

      iii) Water extraction projects

      iv) Soil extraction projects

   c) Infrastructure projects.

   d) Reclamation projects

B) ***Environmentally Critical Areas in Bacoor (ECABs)*** are areas within the City that are environmentally sensitive. These can include, but are not limited to, wetlands, protected habitats, mangrove swamps, or areas prone to natural disasters. These include, but are not limited to:

a) City parks, watershed reserves, wildlife preserves and sanctuaries;

b) Areas set aside for tourism;

c) Habitats of endangered or threatened species of flora and fauna;

d) Areas of unique historic, archaeological, or scientific interests;

e) Disaster-prone areas, such as those frequently visited by natural calamities or other geologic hazards;

f) Areas with critical slopes;

g) Prime agricultural lands;

h) Recharged areas of aquifers;

i) Water bodies that are either tapped for domestic purposes, or within the controlled or protected areas already enumerated above, or are supporting wildlife and/or fishery activities;

j) Mangrove areas; and

k) Coral reef.

C) Other projects and areas not enumerated above may also be declared ECPBs and ECABs by the City Mayor upon recommendation by the CESD, where such recommendation is based on sufficient scientific assessments, public consultations, and expert recommendations.

Section 5. Penalties for Non-compliance - Any entity that initiates or continues with a project classified as an ECPB or located in an ECAB without the necessary ECC and /or CNC will be subject to:

A) An immediate halt of operations to be implemented jointly by the CESD in coordination with other units and departments under the Office of the City Mayor, with the Philippine National Police, and with various national agencies as may be necessary until the required ECC and/or CNC is obtained.

B) A fine of **Five Thousand Pesos (Php 5,000.00)** for every violation or non-compliant activity performed by the entity.

C) Civil liability for any environmental damage caused to the City due to the non-compliance, including the costs for rehabilitation and remediation.

D) **Imprisonment for a period between three (3) months to one (1) year** for any natural person who refuses to comply with a lawful order of the CESD or

of any unit and/or department under the Office of the City Mayor in the course of implementing this Article.

Section 6. Penalties for Material Misrepresentations in the Application - Any entity or person that/who misrepresents material facts in any of the requirements for the issuance of a ECC and/or CNC will be subject to:

A) Closure/Cancellation of business permit.

B) A fine of **Five Thousand Pesos (Php 5,000.00)** for every misrepresentation.

Additionally, the penalty of **imprisonment of three (3) months to one (1) year** shall be imposed upon individuals who were responsible for the misrepresentations, whether they are employees, executives, or directors of the entity or experts who made false findings with respect to the formulation of the EIA report.

Section 7. Processing of Application - The Office of the Building Official / Business Permit and Licensing Department shall undertake the following systematic process to review and evaluate applications for the Environmental Compliance Certificate (ECC) and/or *CNC*:

A) **Initial Assessment:** Upon receipt of a complete ECC/CNC application, the (a) OBO (for construction) (b) BPLO (for command activity not related to construction) shall conduct a preliminary review to determine the completeness and accuracy of the submitted documents. If discrepancies or missing documents are identified, the applicant will be notified within five (5) working days same as RA 111032 to rectify the issues.

B) **Technical Evaluation:** A multidisciplinary team - comprised of duly authorized and trained personnel of other departments and units under the Office of the City Mayor and formed upon the written request of the CESD to the City Mayor - shall evaluate the EIA and other technical documents provided by the applicant. This includes:

    1) Assessing potential environmental impacts and risks.

    2) Verifying the adequacy of proposed mitigation measures.

    3) Ensuring the alignment of the project with city-wide environmental and development goals and standards.

C) **Inter-agency Coordination:** For projects requiring additional approvals or evaluations, CESD shall liaise with relevant city departments and external agencies to ensure holistic project assessments.

D) **Site Inspection:** CESD representatives shall conduct site inspections to validate on-ground conditions against the details presented in the EIA and to identify potential unreported environmental challenges. The City Mayor shall also have the power to designate other departments.

E) **Evaluation Report:** Post-assessment, the multidisciplinary team shall prepare a comprehensive evaluation report, highlighting their findings, concerns, and recommendations. This report shall be made accessible to the applicant within the periods prescribed under Republic Act No. 9485 (the "Anti-Red Tape Act of 2007") as amended by Republic Act No. 11032 (the "Ease of Doing Business and Efficient Government Service Delivery Act of 2018"). At the minimum, the evaluation report shall:

1) Identify potential impacts of the project;

2) Determine which potential impacts are likely to happen and quantify these impacts to the best extent possible;

3) Judge the significance of the potential impact, taking into consideration the effectivity of the proposed mitigation measures provided by the applicant; and

4) Cancellation/revocation of all city permits.

F) **Notification:** The applicant shall be formally notified of CESD's recommendation within thirty (30) working days from the submission of the complete application, unless otherwise specified due to the project's complexity.

G) **Post-Approval Monitoring:** Upon the grant of any or all permits by the city government, CESD shall monitor the project's compliance with the conditions set in the ECC and/or CNC and relevant environmental standards, performing regular inspections and audits as necessary.

H) **Feedback Mechanism:** CESD shall maintain an open channel of communication with the applicant and other stakeholders, encouraging feedback and suggestions to continually improve the applicant with various environmental laws and city ordinances.

Section 10. Land Use Fees -All entities that receive approval for Environmentally Critical Projects in Bacoor (ECPBs) or those in Environmentally Critical Areas in Bacoor (ECABs) are subject to Environmentally Critical Land Use Fees (ECLUF), which are intended to offset environmental impacts and contribute to the Bacoor Environment Fund. The following Rules govern the imposition of Environmentally Critical Land Use Fees:

A) Fee Structure: Fees shall take on a tiered fee structure. Low-Impact projects shall have a land use fee of not more than Ten Thousand Pesos (PHP 10,000.00), Medium-Impact Projects shall have a land use fee of not more than Twenty Five Thousand Pesos (PHP 25,000.00), and High-Impact Projects shall have a land use fee of not more than Fifty Thousand Pesos (PHP 50,000.00).

B) Determination of Fees: In determining the exact amount of Land Use Fees to be paid by the applicant, the following factors must be considered:

a) Environmental Impact: The fee should be high enough to effectively deter projects that have significant negative impacts on the environment, yet not so high as to be prohibitive for projects that are otherwise beneficial or necessary.
b) Local Economic Conditions: The fee should be set at a level that is reasonable given the economic conditions in the community, to avoid stifling economic development.
c) Administrative Costs: The fee should cover the administrative costs associated with reviewing applications, monitoring compliance, and any other associated costs.

C) Payment Schedule: Fees are due upon the issuance of Environmental Compliance Certificate (ECC) and must be paid in full before construction or operation commences. A staggered payment plan may be considered for large-scale projects, subject to approval by the City Council.

D) Use of Funds: Revenues generated from these Land Use Fees will be allocated exclusively to the Bacoor Environment Fund and used in accordance with its stipulated purposes.

E) Exemptions: Certain projects may be eligible for fee reductions or exemptions, particularly those that can demonstrate significant positive environmental impact, or projects undertaken by non-profit organizations for the benefit of the community. Such exemptions shall be granted at the discretion of the City Mayor, following review and recommendation by CESD.

F) Non-compliance/Penalties: Failure to pay the Environmentally Critical Land Use Fees in accordance with the schedule and amount stipulated shall result in penalties as provided below:

a) Upon receipt of a notice of violation from the CESD, the offender shall be given 7 to 30 days within which to remedy the violation. The offender shall also be required to pay a fine of P5,000 for the said offense.

b) If upon the expiration of the said 30-day period and the offender unjustly failed to remedy the violation, the City Mayor shall have the power to revoke all local permits issued to the offender upon the recommendation of the CESD and the Office of the City Legal Service shall be empowered to file the appropriate legal action against the offender in the proper court or government office.

Section 13. Periodic Review - Every five (5) years, the CESD will review and, if necessary, revise the list of ECPBs and ECABs to ensure that it remains up to date with the current environmental context and scientific understanding and submit the same to the City Mayor for approval.

ARTICLE IV. SOLID WASTE MANAGEMENT AND RECYCLING

CHAPTER 1. Introduction

Section 1. Purposes - The objectives of this Article, in alignment with the City's broader vision for environmental sustainability, are as follows:

A) Achieving a Zero Waste City: To implement and rigorously enforce measures that ensure effective solid waste collection, disposal, and recycling, such that the City progressively reduces its trash footprint, ultimately approaching a state of near-zero waste production.
B) Advancing a Circular Economy: To champion practices that prevent waste by reintroducing materials back into the production cycle, fostering a system where products, materials, and resources are continually reused, refurbished, and recycled, thereby minimizing waste generation and resource extraction.
C) Reducing Landfill Dependency: To actively promote waste reduction, separation at source, and recycling, with the overarching aim to substantially decrease our reliance on landfills, which have environmental and public health implications.

Section 2. Definition of Terms – *(to be inserted when final draft is ready)*

Section 3. Covered Entities - This Article applies to:

A) Residential Establishments: All single-family homes, multi-family residences, apartments, dormitories, and other residential facilities situated within the jurisdiction of City of Bacoor.
B) Commercial Establishments: All stores, shops, markets, offices, restaurants, hotels, malls, and other commercial venues operating within the City.
C) Industrial Entities: Factories, warehouses, and other industrial facilities that produce, manufacture, store, or handle goods and products in the city of Bacoor.
D) Educational Institutions: All schools, colleges, universities, training centers, and other educational establishments, both public and private.
E) Healthcare Facilities: Hospitals, clinics, nursing homes, laboratories, and other medical establishments providing healthcare services.
F) Public Spaces and Facilities: Parks, playgrounds, cemeteries, Columbaria, sports complexes, community centers, public markets, bus stops, transport terminals, and other spaces accessible and available for public use.
G) Government Offices and Establishments: All departments, bureaus, offices, and other entities operating under the City Government of Bacoor, including Barangay centers and local government units including trial courts and local offices and various national agencies.
H) Agricultural Entities: Farms, fisheries, poultry, piggeries, slaughterhouses, and other entities engaged in agricultural and aquaculture operations.
I) Construction Sites: All sites where construction, demolition, or renovation of - of buildings or houses is taking place, irrespective of the scale of the project.

J) Events and Gatherings: Any public or private event, gathering, or function that generates waste, including but not limited to festivals, shows, exhibitions, conferences, concerts and ceremonies.
K) All other entities residing or doing business in the City of Bacoor.

CHAPTER 2. Solid Waste Segregation

Section 4. Purpose of Solid Waste Segregation - In keeping with the vision of a sustainable and eco-responsible Bacoor City and in alignment with globally recognized waste management best practices, the purposes of waste segregation are set forth as follows:

A) Environmental Protection: Proper segregation reduces the risk of toxic waste mixtures, subsequently limiting the potential harm to our soil, air, and water.
B) Resource Conservation: Through separating recyclable materials from non-recyclable ones, we ensure that resources are aptly reused or repurposed, conserving our planet's finite resources.
C) Efficient Waste Processing: Segregated waste allows for a more streamlined processing, be it composting, recycling, or other forms of treatment, leading to reduced costs and time consumption.
D) Safety of Workers: Those who handle our waste, from collection to treatment, are better protected when waste is effectively segregated, reducing their exposure to hazardous, toxic, or unsanitary materials.
E) Economic Value: Properly segregated waste, especially recyclables, can be turned into new products, creating a cycle of consumption and production that can benefit local industries and the economy.
F) Reduction in Landfill Dependency: By segregating at the source, we can significantly reduce the amount of waste sent to landfills, prolonging their lifespan and mitigating environmental impacts.
G) Public Health Preservation: By ensuring hazardous waste does not mix with general waste, we diminish the risks of diseases and infections that can spread through contaminated waste.
H) Community Engagement and Education: Embracing waste segregation fosters a sense of community responsibility and offers educational opportunities about sustainable living for both the young and old.

Section 5. Basic Principles of Solid Waste Segregation - In the commitment to upholding an effective waste management strategy that mirrors international best practices, Bacoor City establishes the following fundamental principles of waste segregation:

A) Source Segregation: Waste shall be separated at its origin, typically at the household or business premises where it is generated, to ensure purity and to simplify further processing.
B) Four -Bin System: At a minimum, four distinct bins or containers shall be utilized: one for biodegradable or organic waste, another for recyclables, and a third for non-recyclable or residual waste, and a fourth bin for hazardous waste.

C) Proper Labeling: Containers and bins utilized for waste segregation shall be adequately labeled, colored, or marked to prevent confusion and to promote ease of use for all residents and entities.
D) Safe Handling: Waste, especially hazardous types, shall be handled, stored, and transported in such a way that ensures the safety of handlers, the public, and the environment.
E) Regular Education: Continuous community awareness and education campaigns shall be carried out to ensure that every resident and business entity is informed of the importance and methods of proper waste segregation.
F) Community Participation: Waste segregation is a collective responsibility. Every individual, household, institution, and business in Bacoor City plays a pivotal role in ensuring its success.
G) Reduce, Reuse, Recycle, Recover, and Repurpose: The prioritization of reducing waste generation, reusing items where possible, and recycling materials forms the backbone of waste segregation and management.
H) Environmental Responsibility: Every step in the segregation process shall consider the environmental impact, ensuring that the methods employed are sustainable and eco-friendly.

Section 6. Categories of Solid Waste - For the purposes of waste segregation and management, waste generated within the jurisdiction of Bacoor City shall be categorized as follows:

A) Biodegradable Waste This refers to any organic material that can be broken down in a reasonable amount of time. Examples include but are not limited to food scraps, yard waste, paper, and certain types of textiles.
B) Recyclable Waste (Non-biodegradable waste): These are materials that can be processed and converted into new products. Common recyclables include plastic bottles, aluminum cans, paper, cardboard, certain types of glass, many metals, and residual waste with potential for diversion (such as but not limited to tarpaulin, bubble wrap, clean plastic, tetra packs, and the like)
C) Special or Hazardous Waste: These are wastes that can pose substantial or potential threats to public health or the environment. Examples are paints, chemicals, batteries, fluorescent lights, medical waste, and some household products labeled as hazardous.
D) E-waste: Electronic waste encompasses discarded electrical or electronic devices, and specific components of these devices.
E) Residual Waste: This category includes waste originating from the bathroom, such as used tissues, menstrual hygiene products, diapers, and so on.
F) Construction and Demolition Waste: As the name implies, this pertains to waste from construction and demolition activities, including materials like concrete, bricks, drywall, and lumber.
G) Agricultural Waste: Waste generated from agricultural operations including manure, crop residues, and other farm-related wastes.

Section 7. Waste Segregation at Source - All households, businesses, institutions, and other entities operating within Bacoor City are mandated to segregate waste at

the source of generation. In public areas, waste segregation may be limited to the placing of color-coded bins for biodegradable and non-biodegradable/recyclable waste. Entities that produce hazardous, residual, agricultural, and construction waste shall not deposit said waste in public areas. Persons that violate this provision shall be liable for a fine of Five Thousand Pesos (PHP 5,000.00) for all succeeding offenses. If the violating entity is a juridical person, the officers of said juridical entity may be held liable upon conviction to pay a fine of P5,000.00 for every instance that the foregoing provision was violated.

Section 8. Color-Coded Bins - To aid in the segregation of waste at source, color-coded bins shall be employed for easy identification of waste categories in all commercial, industrial, and institutional areas/establishments including government buildings within the City of Bacoor. The manager, supervisor, or the City Administrator, Punong Barangay, or national agency office head, in the case of public buildings being operated by the City Government, barangay or national government shall be meted a fine of P2,000.00 for every day that this provision was violated after a Notice of Violation was served upon them by the CESD.

Section 9. Proper Labeling and Signage - To further facilitate waste segregation and ensure clarity, each color-coded bin must be labeled clearly with:

A) The category of waste it is intended for.
B) A brief list of common items that fall under that category.
C) An image or icon that represents the category (optional but recommended).

Public collection points, businesses, and institutions must also display clear and legible signage that educates and reminds the public and employees about proper waste segregation practices. Signages should also emphasize the importance of segregation at source and its role in promoting a sustainable environment for Bacoor City. The manager, supervisor, or the City Administrator, Punong Barangay, or national agency office head, in the case of public buildings being operated by the City Government, barangay or national government shall be meted a fine of P2,000.00 for every day that this provision was violated after a Notice of Violation was served upon them by the CESD.

Section 10. Storage and Handling - All entities operating within Bacoor City—households, businesses, institutions, and the like—are hereby mandated to follow the prescribed procedures for the proper storage and handling of segregated waste:

A) Safe Containers: Waste should be stored in durable and washable containers that are resistant to corrosion, water, pests, and do not absorb liquids. Containers should be equipped with tight-fitting lids.
B) Cleanliness and Sanitation: Waste storage areas must be regularly cleaned and disinfected to prevent odor, pests, and potential health hazards. Regular maintenance and cleaning of these areas are crucial to ensure the safety and health of the community.

C) Separate Storage: Each waste category, as previously defined, shall have a designated storage space. Mixing different categories compromises the quality of recyclables and undermines the purpose of segregation.
D) Handling Precautions: When handling waste, especially non-biodegradable and hazardous waste, it is essential to wear appropriate protective gear such as gloves to prevent direct contact.
E) Location: Storage areas should be strategically located to ensure easy access for waste collectors while minimizing disruptions to regular operations or daily activities. It is equally crucial to avoid storing waste near sources of water, food, or in areas of high human traffic.
F) Duration: To reduce the risk of contaminants, odors, and pests, stored waste, especially biodegradable waste, should not be kept on-site for prolonged periods. Establishments and residences are encouraged to schedule regular waste collection or disposal at least weekly.
G) Reduce, Reuse, Refine, Recover, and Repurpose: In line with promoting sustainable waste management, entities are encouraged to not only segregate but also to reduce the amount of waste they generate by reusing materials and refining processes. This approach ensures that materials circulate within productive systems for as long as possible, minimizing waste and maximizing value.
H) Special Handling for Specific Waste: Certain types of waste, such as hazardous waste, require special handling procedures. These should be stored separately, clearly labeled, and handled with extra precautions.

Section 11. Collection Schedules - The City Government of Bacoor, in coordination with its relevant departments and units, shall establish and regularly review waste collection schedules tailored to the needs and circumstances of different areas within the city. Once established, the collection schedules will be published through various official city channels, including but not limited to the city's official website, public bulletin boards, and community centers. The City shall also engage with local barangay units to disseminate this information effectively to all residents.

Recognizing the diverse needs of different areas and establishments within Bacoor, the City reserves the right to adjust collection schedules based on:

A) Seasonal variations in waste volume.
B) Special events or public holidays.
C) Emergent situations such as natural disasters or public health concerns.
D) Feedback and input from the community.
E) Special Collection: Apart from the regular collection schedules, entities that produce significant or specialized waste types—such as large commercial establishments or hospitals—may coordinate with the City to arrange special collection times or methods suited to their specific needs.

Household waste should not be brought out on the street except on the schedule of collection as announced by the Barangay or homeowners' association having jurisdiction over a particular area. The owner, lessor, or lessee of the residence that

violated this provision shall be meted a fine of P2,000.00 for every day that this provision was violated after a Notice of Violation was served upon them by the CESD.

Section 12. Hazardous Waste - Hazardous waste refers to any waste which, by reason of its chemical activity or toxic, explosive, corrosive, or other characteristics, causes danger or is likely to cause danger to public health, safety, or the environment, whether alone or when coming in contact with other wastes. Entities producing hazardous waste are mandated to segregate it at source, ensuring it doesn't mix with non-hazardous waste streams. Hazardous waste shall be stored in secure, leak-proof containers that are appropriately labeled and kept in designated storage areas away from public access.

Transport of hazardous waste shall only be undertaken by entities equipped and licensed by the DENR with a Hazardous Waste Generators Identification to handle such materials. During transportation, hazardous waste shall be contained in suitable packaging to prevent leaks and exposure.

Hazardous waste should be treated using approved methods to minimize harm to health and the environment. Ideally, these treatment processes should recover and recycle components of the waste wherever possible, aligning with the principles of the circular economy. Special waste from treatment, which cannot be recycled or recovered, shall be disposed of in designated facilities approved for hazardous waste handling.

The owner, lessor, lessee, manager, or supervisor of the residence or establishment that violated this provision shall be meted a fine of P2,000.00 for every day that this provision was violated after a Notice of Violation was served upon them by the CESD.

CHAPTER 3. Landfills

Section 13. Purpose of Landfill Management- The overarching intent of landfill management within Bacoor City is multifaceted:

A) Environmental Protection: Landfills, when managed judiciously, serve as a controlled environment wherein waste is isolated from the surroundings. This isolation prevents contaminants from compromising the quality of our air, soil, and water, thus safeguarding the health of both our environment and our community members.
B) Resource Conservation: Recognizing the intrinsic value of materials, even in their discarded state, landfill management endeavors to reclaim and reintroduce valuable resources back into the production cycle. This not only reduces the strain on natural resources but also decreases the need for new landfills, preserving our land for future generations.
C) Operational Efficiency: By instituting streamlined operations, our city can ensure that landfills function efficiently, maximizing their operational lifespan.

This efficiency minimizes costs, both economic and environmental, and reduces the frequency of seeking new landfill sites.

D) Community Well-being: While landfills are a necessity, they shouldn't compromise the quality of life for our residents. Through meticulous management, we aim to minimize nuisances like odor, pests, and noise, ensuring that landfills remain good neighbors to our communities.
E) Forward-thinking Legacy: With an eye on the future, effective landfill management practices lay the foundation for potential site restorations, where closed landfills can be repurposed for green spaces, recreational areas, or other community benefits.

Section 14. Site Selection Criteria - The criteria set forth below ensure that every potential landfill site aligns with the City's environmental, social, and operational imperatives:

A) Environmental Compatibility: Potential sites should not be situated in ecologically sensitive areas, such as wetlands, floodplains, or habitats of endangered species. Such locations pose both an environmental risk and are inimical to our city's conservation efforts.
B) Hydrogeological Suitability: The geological attributes of the prospective site are crucial. Areas with a low water table and impermeable soil or rock layers are preferred to prevent potential leachate from polluting groundwater sources.
C) Proximity to Waste Generation Points: The site should be reasonably accessible from major waste generation points. This minimizes the carbon footprint associated with waste transport, leading to reduced greenhouse gas emissions.
D) Buffer from Residential and Commercial Zones: To minimize disruption to Bacoor's residents and businesses, potential sites must have an adequate buffer zone, ensuring that nuisances such as noise, odor, and sight are kept at bay.
E) Infrastructure Adequacy: Roads leading to the site should be sturdy and well-maintained to handle the frequent vehicular movements. Additionally, the site should have, or be capable of developing, necessary utilities and facilities for efficient landfill operation.
F) Future Land Use and Development Plans: The site's selection should be forward-looking, factoring in the city's future development trajectory. Areas earmarked for urban growth, agricultural expansion, or other significant developments should typically be avoided.
G) Community Feedback and Acceptance: Engaging with the local community and stakeholders to gather feedback is paramount. Their insights, concerns, and acceptance play a pivotal role in the site's final selection.
H) Restoration Potential: Sites that offer the potential for future restoration or repurposing are preferred. Once a landfill reaches its capacity, there exists an opportunity to rejuvenate the space for community use, be it parks, recreational areas, or other green spaces.
I) Operational Flexibility: The terrain and size of the site should accommodate efficient waste deposition, management, and potential expansions. This

ensures the site's utility over a longer duration, reducing the frequency of new site identifications.

J) Economic Feasibility: While not compromising on environmental and social factors, the cost of acquiring, developing, and managing the site should be within the city's budgetary provisions.

Section 15. Landfill Design Standards - To achieve a balance of functionality, sustainability, and community welfare, the following standards should be followed in choosing a landfill site where the City's waste shall be dumped:

A) Integrated Waste Management: The landfill should have a holistic waste management system, prioritizing waste reduction and recycling, thereby optimizing the volume and types of waste entering the landfill.

B) Leachate Management: The landfill should feature a multi-layered liner system made from impermeable materials to prevent the escape of leachate into the environment. Additionally, efficient leachate collection and treatment systems must be in place to safeguard groundwater sources.

C) Gas Collection and Control: As waste decomposes, it produces landfill gas, a mix of methane and carbon dioxide. The landfill should be implementing gas collection systems to minimize greenhouse gas emissions and explore opportunities to convert these gases into energy before it can be used by the City for waste disposal.

D) Stormwater Management: The landfill must be properly designed so as to prevent rainwater from entering waste cells, which can increase leachate volume. Rainwater run-off should be effectively channeled away from waste areas using drainage systems.

E) Waste Compaction: The landfill to be used by the City should utilize state-of-the-art equipment to compact waste efficiently. By maximizing the density of waste, we extend the operational life of the landfill and optimize land use.

F) Cover Systems: Daily and final cover systems should be employed. While daily covers minimize odor, pests, and litter, the final cover system, applied once a landfill cell is closed, ensures environmental protection and facilitates site restoration.

G) Monitoring Systems: The landfill should install real-time monitoring systems to regularly assess the landfill's performance in terms of gas emissions, leachate production, and structural stability.

H) Access Control: Landfills should feature robust access control measures, including fencing, security personnel, and surveillance, ensuring only authorized entry and safeguarding against illegal dumping.

I) Buffer Zones: Maintain adequate green buffer zones around the landfill. These not only act as visual screens and noise barriers but also serve as habitats, promoting local biodiversity.

J) Rehabilitation and Aftercare: Every landfill design must incorporate post-closure care plans. Whether it's transforming the closed landfill into a green space, recreational facility, or any other community resource, the goal is to give back to Bacoor City.

Section 16. Waste Acceptance and Rejection - The following shall govern the acceptance and rejection of waste in landfills in the City of Bacoor:

A) Acceptance Criteria:
    a) General Waste: Everyday waste from households, businesses, and institutions, excluding hazardous, sanitary, agricultural, and construction waste, is generally accepted, subject to the landfill's current capacity and operating conditions.
    b) Recyclable Materials: Only recyclables that cannot be processed or repurposed elsewhere in the city's waste management system are to be accepted.
    c) Specialized Waste: Specific types of waste, like agricultural or construction-related, may be accepted if the landfill is equipped with the requisite processing facilities and such waste meets pre-defined standards.

B) Rejection Criteria:
    a) Hazardous Waste: Any waste that poses substantial or potential threats to public health or the environment, including flammable, toxic, or corrosive materials, shall be outrightly rejected.
    b) Unsorted Waste: Waste that has not been segregated at source, posing a challenge to effective landfill management and resource extraction, will be declined.
    c) Bulk Waste: Large items that have not been disassembled or downsized, making them unsuitable for efficient landfill operations, will be turned away.
    d) Electronics: E-waste or electronic items, given their resource value and potential harm if improperly disposed, shall not be accepted. These must be channeled to appropriate recycling facilities.
    e) Materials with High Resource Value: Any waste that can be more sustainably processed, refurbished, or recycled outside the landfill shall be rejected to ensure optimal resource utilization.

C) Process for Rejection:
    a) Notification: Upon the rejection of any waste, the entity responsible for the delivery will be immediately informed, detailing the reasons for non-acceptance.
    b) Alternative Disposal Guidance: Entities whose waste has been rejected will be provided with guidance on alternative, appropriate methods or locations for disposal, recycling, or repurposing.

Section 17. Landfill Operation Protocols - The following protocols shall be observed in the operation of landfill sites in the City of Bacoor:

A) Pre-Operational Phase:
    a) Site Assessment: Before operations commence daily, a thorough assessment of the landfill site shall be conducted to ensure structural integrity, safety, and readiness for waste acceptance.
    b) Equipment Check: All machinery and equipment, including compactors, bulldozers, and cover equipment, shall undergo daily checks to ensure proper functionality.

B) Waste Reception:
    a) Inspection at Entry: Waste transport vehicles arriving at the landfill shall be inspected to ensure conformity with waste acceptance criteria.
    b) Weighing: Upon passing inspection, each vehicle shall be weighed to record the volume of waste being deposited.
C) Waste Placement:
    a) Layering: Waste shall be spread in layers not exceeding a specified height, ensuring efficient compaction and aeration.
    b) Compaction: After layering, waste shall be compacted to reduce its volume, making optimal use of the landfill space.
    c) Covering: At the end of each operational day, compacted waste shall be covered with soil or other approved materials to minimize odor, prevent pest infestation, and facilitate subsequent waste placement.
D) Resource Extraction:
    a) Identification: Designated teams shall continuously identify areas within the landfill that hold significant potential for resource extraction, considering both the type and age of waste.
    b) Extraction Process: Using specialized equipment and methods, valuable materials such as metals, glass, and certain plastics shall be extracted for reuse or recycling.
    c) Resource Processing: Extracted materials shall be processed, cleaned, and sorted before reintroduction into the production cycle.
E) Environmental Controls:
    a) Leachate Management: Systems must be installed to collect and treat leachate, preventing groundwater contamination.
    b) Gas Management: Methane and other gases produced during decomposition shall be captured and, where feasible, converted into energy or flared safely.
    c) Erosion Control: Measures to prevent soil erosion, including terracing and vegetation planting, shall be employed.
    d) Dust and Odor Control: Regularly sprinkle water or employ other approved methods to minimize dust. Odor neutralizing agents may be used as required.
F) Health and Safety Protocols:
    a) Protective Gear: All staff operating within the landfill site shall be equipped with protective gear, including masks, gloves, and safety vests.
    b) Emergency Procedures: Clearly defined emergency response procedures shall be in place for scenarios such as fires, equipment malfunctions, or hazardous waste spills.
    c) Regular Training: Staff shall undergo regular training to keep them updated on safety procedures and operational best practices.
G) Data Management and Reporting:
    a) Record Keeping: Maintain detailed records of waste received, resources extracted, and any operational incidents.

b) Periodic Reporting: Generate periodic reports detailing landfill operations, resource recovery, and any challenges faced, ensuring transparency and accountability.

H) Post-Operational Protocols:
   a) Site Rehabilitation: Once a landfill reaches its capacity, it shall be rehabilitated, with possibilities including the creation of recreational green spaces, forestation, or other community-beneficial projects.
   b) Monitoring: Post-closure, the site shall be continuously monitored for environmental parameters like gas emission and groundwater quality to ensure ongoing safety.

Section 18. Environment Monitoring and Control - To ensure that the City's landfills operate with the utmost respect for our surroundings, minimizing harm and maximizing potential, the following shall be placed at each landfill site:

A) Air Quality Monitoring:
   a) Sampling Stations: Establish fixed air sampling stations around the landfill perimeter and at strategic points within the site.
   b) Pollutant Tracking: Regularly measure for pollutants such as methane, carbon dioxide, and volatile organic compounds to ensure they remain within acceptable levels.
   c) Odor Detection: Employ sensors to detect and quantify odorous compounds, taking corrective action when levels exceed set thresholds.

B) Water Quality Monitoring:
   a) Groundwater Surveillance: Install groundwater monitoring wells at varying depths and locations to regularly assess water quality, particularly checking for potential leachate infiltration.
   b) Surface Water Analysis: Regularly sample surface water sources adjacent to the landfill site for potential contaminants, ensuring they meet established water quality standards.

C) Soil Health Assessment:
   a) Soil Sampling: Periodically extract soil samples from different landfill zones to check for the presence of contaminants and assess overall soil health.
   b) Leachate Breakout Monitoring: Implement systems to detect any leachate seepages, ensuring rapid containment and treatment.
   c) Leachate Collection: Ensure efficient collection of leachate using dedicated drainage systems, preventing groundwater contamination.
   d) Treatment: Subject the collected leachate to appropriate treatment processes before discharge, adhering to local and international water quality standards.

D) Waste Composition and Volume:
   a) Waste Audits: Conduct regular waste audits to understand the composition of waste being deposited, assisting in resource extraction strategies and ensuring conformity with waste acceptance criteria.
   b) Volume Measurements: Keep track of daily waste volumes to monitor landfill capacity and project future space requirements.

E) Biological Monitoring:

a) Biodiversity Checks: Regularly assess flora and fauna populations in and around the landfill, ensuring operations aren't adversely impacting local ecosystems.
b) Pest Control: Implement pest control measures, while ensuring they don't harm non-target species or the broader environment.

F) Data Management and Review:
a) Centralized Database: Create a centralized database for all environmental data collected, ensuring easy access and analysis.
b) Periodic Review: Organize monthly review meetings to assess the data, identify trends, and adapt operational protocols if required.

Section 19. Health and Safety Protocols - In line with the City's dedication to sustainable growth and urban mining principles, the health and safety of all individuals working at, visiting, or residing near landfill sites remain paramount. To ensure the same, the following protocols shall be implemented in all landfill sites in the City of Bacoor:

A) Personal Protective Equipment (PPE):
a) Mandatory Use: All staff working within the landfill site must wear appropriate PPE, including but not limited to safety helmets, high-visibility vests, safety boots, gloves, and protective eyewear.
b) Training: Workers must receive training on the correct use, maintenance, and storage of PPE.
c) Replacement: Regular checks and timely replacement of worn-out or damaged PPE.

B) Hygiene and Sanitation:
a) Facilities: Adequate sanitation facilities, including washrooms and handwashing stations equipped with antibacterial solutions, must be available and maintained.
b) Waste Handling: Workers involved in direct waste handling must be provided with facilities to shower and change clothing before exiting the site.
c) Sanitation Facilities:
i) Restrooms: Adequate, well-maintained restrooms equipped with handwashing stations at strategic locations within the landfill site.
ii) Shower Facilities: Workers must have access to shower facilities to cleanse themselves post their shifts.
iii) Clean Water Supply: Ensure uninterrupted supply of clean water for drinking and cleaning purposes.
d) Hand Hygiene:
i) Hand Sanitizers: Placement of hand sanitizing stations at various points, especially at the entrance and exit.
ii) Regular Intervals: Workers are advised to sanitize their hands at regular intervals, especially after handling waste and before consuming food or beverages.
e) Food and Beverage Consumption:

i) Designated Areas: Allocate specific areas for the consumption of food and beverages away from waste handling zones.
ii) Cleanliness: Regular cleaning and sanitizing of these areas to prevent contamination.

f) Waste Management at Facilities:
i) Regular Cleanup: Ensure regular cleanup of restrooms, food areas, and other facilities.
ii) Disposal: Properly dispose of waste generated in the hygiene and sanitation facilities, ensuring it doesn't improperly mix with the landfill waste. If the waste generated are deemed acceptable under Section 16 of this Article, the waste generated shall be processed in the landfill accordingly.

C) Hazard Communication:
a) Training: Regular training sessions on the potential hazards present in the landfill, including chemical, biological, and physical risks.
b) Signage: Clear and visible signs indicating potential hazards, restricted areas, and safety instructions.

D) Machinery and Vehicle Safety:
a) Operator Training: Only trained and certified operators should handle heavy machinery and vehicles.
b) Maintenance: Regular maintenance checks and timely repairs of all equipment to ensure safe operations.

E) Emergency Response Plans:
a) Preparedness: The City shall establish a detailed emergency response plan, addressing scenarios like fires, chemical spills, or other unforeseen events.
b) Training Drills: Conduct periodic emergency response drills to ensure staff are familiar with protocols and evacuation routes.

F) Occupational Health Monitoring:
a) Regular Check-ups: Workers must undergo regular health check-ups, focusing on potential health risks associated with landfill operations.
b) Vaccination: Provide necessary vaccinations for workers against potential biological hazards.

G) Air Quality and Respiratory Protection:
a) Dust and Gas Monitoring: Continuous monitoring of air quality, especially for dust and harmful gases, ensuring levels stay within safe limits.
b) Respiratory PPE: In zones where dust or gas concentrations might exceed safe levels, the use of respiratory protective equipment, such as masks or respirators, is mandatory.

H) Public Safety:
a) Restricted Access: Limit public access to operational areas of the landfill, directing visitors to designated safe zones.
b) Awareness Campaigns: Hold community awareness campaigns on the potential risks associated with unauthorized landfill entry.

I) Reporting Mechanisms:
a) Incident Reporting

i) Incident Logs: Any event that results in injury, illness, damage to health, or an endangers safety must be reported. The operator of the landfill shall maintain a detailed log of any health or safety incidents occurring at the landfill, analyzing trends to inform future safety improvements.
ii) Database Creation: the landfill operator shall develop a centralized incident reporting database to facilitate the storage, retrieval, and analysis of reported incidents.

b) Concerns and Observations:
i) Feedback Channels: Set up dedicated channels (like helplines, online portals, or physical suggestion boxes) for workers, contractors, and the public to voice concerns or provide feedback on safety matters.
ii) Acknowledgment: All submitted concerns and observations must be acknowledged within 48 hours of receipt, and the operator will provide feedback on any actionable items within five working days from the receipt of the concerns or observations.

Section 20. Landfill Capacity and Lifespan Management - To ensure optimal utilization of landfill space, while prioritizing sustainability and minimal environmental impact, the following protocols concerning the management of landfill capacity and its effective lifespan shall be observed:

A) Capacity Assessment:
a) Initial Evaluation: Prior to a landfill's operation, a thorough assessment to ascertain its total capacity, in terms of volume and weight, will be undertaken. This shall include factors like geological structure, ground stability, and intended landfill design.
b) Regular Monitoring: Periodic assessments will be conducted to determine the remaining capacity of the landfill, with considerations for compaction and settlement rates.

B) Extension Strategies:
a) Vertical Expansion: Where permissible and safe, vertical expansion of a landfill will be considered to maximize its capacity without extending the spatial footprint.
b) Horizontal Expansion: Before any horizontal extension, detailed impact studies will be conducted, ensuring minimal disruption to the surrounding ecosystem and communities.

C) Waste Reduction and Diversion:
a) Resource Recovery: Emphasis on extracting valuable resources, such as metals and certain plastics, from the waste before disposal, in alignment with the principles of urban mining.
b) Composting and Biogas Production: Encourage organic waste processing to produce compost and biogas, further reducing the volume directed towards landfills.

c) Material Recovery Facilities (MRFs): Establishing and efficiently operating these facilities to segregate recyclable materials from the waste stream, minimizing landfill input.
    i) Establishment: The City shall identify and designate suitable locations for the construction and operation of Material Recovery Facilities.
    ii) Operational Efficiency: The City shall ensure that these MRFs are equipped with state-of-the-art machinery and technologies designed for the efficient segregation of recyclable materials. Regular maintenance and upgrades shall be mandated to ensure continued efficiency and adherence to evolving waste segregation standards.
    iii) Training and Employment: The City shall invest in the training of personnel to proficiently operate and manage these facilities, ensuring both the conservation of resources and the creation of job opportunities for residents.
    iv) Waste Stream Management: The City shall implement measures to direct the majority of its waste towards MRFs before any disposal process, ensuring that recyclable materials are adequately recovered and redirected from the landfill stream.
    v) Quality Control: Rigorous quality checks shall be performed to ascertain the purity and quality of segregated materials, ensuring they are fit for recycling or repurposing.

D) Compaction Techniques:
    a) Machinery: Utilize modern machinery designed for efficient compaction, ensuring more waste can be stored within a smaller space.
    b) Layering Method: Use alternating layers of waste and cover soil to enhance stability and optimize space.

E) Monitoring Settlement Rates:
    a) Continuous Observation: Implement advanced sensor technology to continuously monitor the rate at which waste settles, aiding in predicting the landfill's lifespan accurately.
    b) Mitigation Measures: Should the settlement rate accelerate, actions such as enhanced compaction or waste diversion will be considered.

F) Reclamation and Repurposing:
    a) Post-Closure Use: Once a landfill reaches its end of life, the City will assess its potential for repurposing, possibly as a green space, recreational area, or renewable energy site, aligning with the principles of the circular economy.
    b) Continuous Monitoring: Even after closure and reclamation, the site will be continuously monitored for any potential environmental or health risks.

Section 21. Closure and Post Closure Management- When it becomes necessary to close a landfill site, the following procedure shall be followed:

A) Closure Notification: The operator shall notify the City Government at least one year before the intended closure of a landfill site, detailing the reasons and providing a closure plan for approval.
B) Closure Plan: The operator shall develop a comprehensive closure plan that addresses environmental, health, and safety concerns. This plan must be approved by the City Government prior to any closure activities.
C) Site Rehabilitation: The operator shall rehabilitate the site by ensuring proper sealing of waste, installing an effective leachate and gas management system, and setting up soil and vegetative covers to stabilize the area.
D) Monitoring Infrastructure: The City Government shall mandate the installation of monitoring systems that track landfill gas emissions, ground and surface water quality, and other environmental factors. These systems shall be integrated with the City's smart technology network for remote monitoring and reporting.
E) Post-Closure Access Restrictions: The operator shall secure the site against unauthorized access for a specified post-closure period, using physical barriers and signage that details the potential hazards.
F) Long-Term Care: Covered entities shall be responsible for the long-term care and monitoring of the closed landfill site for a minimum period specified by international standards or as deemed appropriate by the City Government, ensuring environmental safety and adherence to regulations.
G) Resource Recovery: In line with the principles of urban mining, the City Government shall evaluate opportunities for resource recovery from closed sites, ensuring that potential extraction operations do not compromise environmental safety.
H) Post-Closure Land Use: The City Government shall coordinate with stakeholders to determine potential sustainable land uses for closed landfill sites, such as green spaces, recreational parks, or renewable energy installations. Any proposed use shall align with the City's broader vision of a circular economy.
I) Contingency Planning: The operator shall provide a contingency plan addressing potential post-closure incidents, detailing immediate actions, communication strategies, and emergency resources to mitigate any adverse impacts.

Section 22. Leachate Management - Leachate is a liquid that accumulates in landfills and is composed of a mixture of rainwater, organic matter, and hazardous substance. They can contaminate soil, groundwater, and surface water. The following shall be observed and established to prevent leachate contamination:

A) Mandated Collection Systems: The City Government shall require all landfill operators to install and maintain an effective leachate collection system. This system shall be engineered to capture and convey leachate, preventing its uncontrolled release into the environment.
B) Leachate Treatment Standards: Prior to any discharge, all leachate must be treated to meet the stringent standards determined by the City's environmental and health authorities. The City Government shall ensure these standards align with international best practices and are consistently updated.

C) Routine Monitoring and Reporting: The landfill operator shall consistently monitor the volume and quality of leachate. A comprehensive report shall be submitted to the City's relevant department on a quarterly basis, detailing the collected data.
D) Preventive Containment Infrastructure: The City Government shall command that landfills be equipped with liners and barrier systems of high integrity to prevent leachate seepage into surrounding soils, groundwater, and surface waters.
E) Leachate Recirculation: Where scientifically appropriate, and without compromising landfill stability, operators shall reintroduce treated leachate back into the landfill to expedite waste decomposition.
F) Swift Response to Anomalies: In cases of unexpected leachate surges or system breakdowns, operators must act immediately, employing their emergency response measures. All such incidents and remedial actions taken shall be promptly documented and reported to the City's oversight bodies.
G) Biennial Infrastructure Evaluation: The City Government shall require landfill operators to undergo a third-party review of their leachate management infrastructure every two years to confirm its efficiency and conformity to the established standards.

Section 23. Landfill Gas Management and Utilization - To more effectively and efficiently manage gas emissions, including greenhouse gases, the following are required at every landfill site:

A) Mandatory Gas Collection Systems: The City Government shall mandate all landfill operators to establish and maintain a comprehensive landfill gas collection system. This system should effectively capture, control, and monitor landfill gas emissions.
B) Landfill Gas Composition Monitoring: Operators shall routinely monitor and document the composition and volume of landfill gas, ensuring its constituents—especially methane and carbon dioxide—are consistently identified and measured.
C) Gas Treatment and Control Measures: Prior to any beneficial utilization or release, landfill gases must undergo treatments to remove impurities. The City Government shall specify clear standards for gas treatment based on international benchmarks.
D) Energy Recovery Initiatives: Leveraging principles from the circular economy and smart cities, operators shall be encouraged to harness landfill gas for energy recovery, transforming it into electricity, heat, or green fuel whenever feasible.
E) Routine Emission Reports: Landfill operators shall provide the City's designated department with quarterly reports detailing landfill gas volumes, compositions, recovery rates, and utilization outcomes.
F) Safety Protocols and Infrastructure: All facilities engaged in landfill gas management must be equipped with safety measures like gas detection systems, explosion-proof equipment, and fire suppressants. The City Government shall periodically review and endorse these provisions.

G) Regular Infrastructure Inspections: To ensure optimal functionality and safety, landfill gas management infrastructures shall undergo biennial evaluations by certified third-party assessors

Section 24. Illegal Dumping - All individuals, businesses, and institutions operating within the City of Bacoor are expressly prohibited from unlawfully discarding, discharging, or disposing of waste in places not designated for such purposes by the City Government. In addition, the following shall be implemented:

A) Surveillance and Monitoring: The City Government shall deploy monitoring and surveillance measures, including but not limited to CCTV cameras and regular patrols, at known hotspots for illegal dumping activities.
B) Identification: In cases where illegally dumped waste can be traced back to its origin, the responsible party shall be immediately notified and penalized.
C) Sanctions: The penalties provided under Section 25 of this Chapter shall apply immediately.
D) Reporting Mechanisms: A straightforward and user-friendly reporting system shall be established, allowing citizens to report incidents of illegal dumping, complete with photographic or video evidence when possible. (rewards)
E) Periodic and Random Waste Audits: To curb illegal dumping, the City will perform random waste audits on businesses, especially those producing substantial amounts of waste, to ensure compliance with waste disposal regulations.
F) Database and Tracking: A centralized database shall be maintained by the CESD to track reported cases, actions taken, and perpetrators of illegal dumping, ensuring repeat offenders face escalating penalties.

Section 25. Penalties - Any person/s who violates the provisions in this Chapter, whether through acts of omissions, shall suffer the penalty of 1 year imprisonment and a Five Thousand Peso (Php 5,000.00) fine upon conviction for every instance that the foregoing provisions were violated. In addition, said person/s shall incur strict civil liability for the costs of reversing the negative environmental impacts caused by said acts or omissions. Following the precautionary principle, lack of conclusive scientific evidence that any particular instance of environmental damage was directly caused by said person/s shall preclude the court from finding the person/s liable.

In the case of employees who have violated the provisions of this chapter, he, she, or they shall be solidarily liable with their employers unless the employer is able to prove that it was not negligent in the hiring and supervision of the employees. In the case of juridical persons, its officers shall be held solidarily liable with the person/s who personally committed the offense. Provided that if the offender/s is/are employed by the city government, national government, or by a barangay within the City of Bacoor, the offender shall also be terminated from employment or removed from public office upon conviction by a court of law.

Section 26. Contingency Planning - The City Government shall formulate comprehensive contingency plans to address potential unforeseen disruptions,

emergencies, or issues pertaining to landfill operations and waste management. As part of these contingency plans, the following should be incorporated:

A) Potential Scenarios Covered: The contingency plans shall address, but not be limited to, the following scenarios: landfill fires, hazardous waste incidents, excessive leachate production, uncontrolled landfill gas emissions, breaches of containment barriers, extreme weather events, and large influxes of waste beyond expected volumes.
B) Regular Review and Updates: The City Government shall review and, if necessary, update the contingency plans annually or following any major incident to ensure they remain relevant and effective.
C) Coordination with BDRRMO: The City shall establish a collaborative framework with the Bacoor Disaster Risk Reduction & Management Office to ensure swift and coordinated responses during crises, leveraging each entity's unique resources and expertise.
D) Training and Simulation: The City Government, in collaboration with landfill operators, shall conduct regular training sessions and simulations for City staff and other stakeholders, ensuring preparedness and familiarization with the established protocols.

Section 27. Continuous Capacity Building - The City Government shall institute regular training programs targeting landfill operators, waste management personnel, and related city staff. These programs shall be designed to keep them updated on emerging best practices, technological advancements, and sustainable waste management strategies in line with the principles of urban mining, smart cities, and the circular economy. In addition, the following shall also be implemented:

A) Engagement of Experts and Consultants: The City shall engage experts, consultants, and industry leaders to provide insights, workshops, and hands-on training, ensuring that the City remains at the forefront of waste management innovation.
B) Partnerships with Academic Institutions: Collaborations with local and international academic institutions shall be fostered to research, develop, and implement advanced waste management solutions. Such partnerships can also pave the way for internship and apprenticeship opportunities, nurturing the next generation of environmental stewards.
C) Feedback Mechanism and Continuous Improvement: A structured feedback mechanism shall be established to gauge the effectiveness of training programs and public campaigns. Feedback from participants, community leaders, and the general public will guide the iterative improvement of capacity-building initiatives.

CHAPTER 4. Recycling

Section 28. Purpose and Overview - The purpose of this Chapter is to outline, guide, and strengthen the City of Bacoor's efforts in advancing recycling initiatives. As part of the City's broader vision, recycling is recognized as a paramount tool for driving sustainability, supporting the development of a smart city ecosystem, actualizing the

principles of a circular economy, and ensuring long-term financial feasibility. Recycling not only alleviates the strain on our natural resources and reduces landfill waste but also paves the way for economic growth, job creation, and innovative opportunities in waste management. It plays an essential role in conserving energy, minimizing greenhouse gas emissions, and reducing the City's carbon footprint.

Section 29. Definition of Recyclables- For the purpose of this Chapter, recyclable materials shall include but are not limited to paper, cardboard, glass, plastics, metals, and other materials that the City may designate from time to time based on recycling market developments and technological advancements.

Section 30. Collection and Transport of Recyclables - In addition to Section 11 of this Article, the City Government shall establish a dedicated infrastructure such as "buy-back station" for the collection of recyclables, ensuring that the collected materials remain uncontaminated and retain their value for efficient recycling.

Section 31. Recycling Centers - The City Government shall establish and maintain strategically located recycling centers throughout the city to facilitate the deposit, collection, sorting, and processing of recyclables. These centers shall be designed to accommodate different types of recyclables, including plastics, metals, glass, paper, and e-waste, ensuring separate and uncontaminated collection.

Recycling centers shall be integrated with the city's digital network, if any, offering real-time data on input-output, operational efficiency, and environmental impact metrics.

The City Government shall endeavor to secure partnerships with private sector entities in operating or enhancing recycling centers, tapping into their expertise, technological advancements, and best practices.

The City shall establish linkages with manufacturers, producers, and downstream recyclers to ensure that processed materials from recycling centers find their way back into the production cycle, fulfilling the circular economy vision.

Section 31A. Material Recovery Protocols - The following protocol shall be followed for the recovery of materials from recyclables:

A) **Preliminary Sorting:** At source, entities are mandated to segregate recyclables based on their type and cleanliness pursuant to Section 7 of this Article.
B) **Collection and Transfer:** Recyclables collected should be transferred to recycling centers or Material Recovery Facilities (MRFs) in designated containers, ensuring no cross-contamination with other types of waste during transportation. The City Government shall initiate the establishment of said recycling centers or MRFs.
C) **Processing at Centers:** Upon reaching recycling centers or MRFs, recyclables shall undergo advanced sorting using manual labor and machinery where required. Advanced sorting processes, such as air classifiers, optical

sorters, or magnets, may be used to refine and isolate specific materials, ensuring a higher purity level.

D) **Storage:** Post-sorting, materials should be stored in clean, dedicated spaces or containers to prevent contamination before processing or transport to downstream recyclers. Storage spaces shall be designed to protect materials from environmental factors, ensuring their quality remains intact.

E) **Downstream Processing:** The City Government and/or the operator/s of Recycling Centers shall ensure that recyclables, once sorted and stored, are transferred to facilities that can process them into usable raw materials or new products. Regular audits of these facilities will ensure the recyclables' end value is maximized, in alignment with the principles of the circular economy.

F) **Quality Assurance and Monitoring:** Protocols shall be in place to test the quality of sorted and processed recyclables regularly. These protocols will ensure that recyclables maintain their intrinsic value and meet the standards required by downstream manufacturers or processors.

G) **Payment Protocol**: Upon the date of effectivity of this ordinance, the CESD shall be given 3 working days within which to submit to the City Mayor, the protocol on how to compensate persons who voluntarily delivered recyclables to buy-back stations.

Section 32. Junkshop and Junk Dealers Responsibilities over End-of-Life Vehicles - In addition to the responsibilities of junkshop operators and junk dealers under City Ordinance No. 2014-004, junk dealers and junkshop operators also have the responsibility to segregating, processing, and preparing materials from End-of-Life Vehicles (ELVs) for urban mining. To wit:

A) **Definition:** End-of-Life Vehicles (ELVs) refer to motor vehicles that have reached the end of their usable life, whether due to age, wear and tear, damage, or any other reason that renders them non-functional or beyond economical repair.

B) **Responsibilities of Junk dealers, junkshops, and junkshop operators:** ELVs procured by junk dealers shall be methodically dismantled to extract reusable parts. All reusable components shall be inventoried, tested, and refurbished as necessary, before resale or reintroduction into the market.

Section 33. Public Private Partnerships –

A) **Definition:** A Public-Private Partnership (PPP) refers to a collaborative agreement between the City Government and private sector as provided under RA11966 (also known as the PP/D code of the Philippines which to effect on 23 December 2023) entities with the aim of financing, designing, implementing, and operating services and facilities traditionally provided by the public sector.

B) **Promotion of PPPs:** The City Government shall actively encourage and promote partnerships with the private sector to enhance the City's recycling infrastructure, technology, and services.

C) **Proposal Evaluation:** Proposals for PPPs shall be evaluated based on their alignment with the City's recycling goals, their feasibility, sustainability, social impact, and their alignment with the principles of the circular economy. The City shall prioritize proposals that demonstrate a clear understanding of community

needs, employ advanced recycling technologies, and offer sustainable and long-term solutions.

Section 34. Upcycling and Creative Reuse – Upcycling, also known as creative reuse, involves the process of transforming discarded items or waste materials into new products of better quality or environmental value. The City shall promote upcycling in the following ways:

A) **Promotion through educational campaigns:** Educational campaigns and workshops focusing on the benefits and methods of upcycling shall be initiated to raise public awareness and participation.
B) **Upcycling Awards:** The City Government shall establish an "Upcycling Award" to recognize outstanding upcycling initiatives on an annual basis.
C) **Upcycling Hubs:** The City shall establish or support the establishment of community upcycling hubs where residents can access tools, materials, and guidance to upcycle waste items.
D) **Collaborations with Educational Institutions:** Schools and educational institutions within the City shall be encouraged to integrate upcycling and creative reuse projects into their curriculum. The City Government will work in tandem with these institutions to provide resources and expertise for these initiatives.
E) **Upcycling fairs:** Special events, such as upcycling fairs or exhibitions, shall be organized to support artisans and businesses involved in upcycling.
F) **Adopting Most Innovative Upcycling Products:** The City Government shall actively seek, research, and adopt innovative upcycling solutions that have demonstrated environmental, social, and economic benefits. This will include, but not be limited to, projects that transform everyday waste materials into functional products or energy sources, such as the Solar Plastic Bottle Lamps inspired by the "Liter of Light" initiative.
    a) **Pilot programs:** Where the above criteria are met, the City will allocate resources to initiate pilot programs that test and validate the feasibility, scalability, and impact of innovative upcycling products. Successful pilots can then be integrated into broader city-wide initiatives.
    b) **Collaboration with Innovators:** Innovators, entrepreneurs, and organizations pioneering groundbreaking upcycling solutions shall be invited to collaborate with the City, bringing their expertise to benefit the community at large. Such collaboration might include knowledge-sharing sessions, workshops, and public installations.

Section 35. Integration with Circular Economy – The City Government shall adopt a holistic approach to recycling, ensuring that all practices align with the principles of a circular economy. This approach recognizes that waste can be a valuable resource and focuses on extracting the maximum value from products while in use, then recovering and regenerating products and materials at the end of each service life.

All entities operating within the City, from households to businesses, shall be encouraged to optimize the lifespan of products and materials through repair, refurbishment, and remanufacturing before considering disposal.

CHAPTER 5. Organic Waste

Section 36. Organic Waste Reduction and Source Segregation – The City Government recognizes the environmental and economic implications of organic waste generation and commits to fostering a proactive approach in its management in the following manner:

A) Reduction at Source: All entities, including households, businesses, institutions, and public facilities, shall endeavor to reduce the generation of organic waste at its source. This may be achieved through practices such as mindful purchasing, reducing food waste, and promoting home composting where feasible.
B) Segregation Obligation: It shall be mandatory for all entities to segregate organic waste from other waste streams at the source of generation. Organic waste bins or receptacles should be distinct and clearly labeled to prevent contamination.

Section 37. Organic Waste Recycling Programs for Large Volume Producers - Large volume organic waste producers, including but not limited to restaurants, hotels, markets, and food processors, play a pivotal role in the City's waste management ecosystem. The following programs are therefore required for all covered entities:

A) Mandatory Recycling Program: Entities generating significant quantities of organic waste are mandated to establish and maintain robust organic waste recycling programs.
B) Guidelines and Standards: The City Environment Service Department (CESD) shall develop and periodically review guidelines and best practices for the establishment, operation, and maintenance of organic waste recycling programs for large producers

Failure to implement Organic Waste Recycling Programs pursuant to the CESDs guidelines will merit a fine of Five Thousand Pesos (Php 5,000.00).

Section 38. Biogas and Energy Recovery from Organic Waste - The City Government shall commission studies to assess the feasibility and benefits of setting up biogas plants and other organic waste-to-energy facilities within its jurisdiction.

Based on the outcomes of the feasibility studies, the City Government shall pursue the establishment of facilities in partnership with the Department of Energy that convert organic waste to energy, prioritizing areas with high organic waste generation.

The City shall explore partnerships with the private sector, research institutions, and potential investors to finance, develop, and manage these facilities.

Energy generated from organic waste shall be integrated into the City's energy grid, utilized in public facilities, or distributed to areas in need, ensuring that the benefits of waste-to-energy solutions are widely experienced within the community.

Section 39. Organic Waste in Aquaculture and Livestock Feed – Organic waste has potential value in supporting sustainable aquaculture and livestock industries. Properly processed and treated organic waste can become a resource that supports food production and reduces the need for synthetic inputs. Thus, the City Government shall encourage the sustainable integration of organic waste in aquaculture and livestock feed in the following manner:

A) Feasibility and Safety Assessment: Before integrating organic waste into aquaculture and livestock feed, a comprehensive assessment shall be conducted to ensure the feasibility and safety of such practices. This will ensure that the organic waste utilized does not pose health risks to the aquatic life, livestock, or, subsequently, to the consumers.
B) Processing Standards: The City Government, in conjunction with relevant agencies, shall establish stringent standards for the treatment, processing, and utilization of organic waste in aquaculture and livestock feed.
C) Partnerships with Agriculture Sector: The City shall foster partnerships with local farmers, fisherfolk, and agribusinesses to promote the use of quality processed organic waste products in their operations, ensuring both economic and environmental benefits.
D) Monitoring and Quality Control: Regular monitoring shall be undertaken by relevant authorities to ensure that the organic waste used in feed meets the necessary safety and quality benchmarks.

Section 40. Promotion and Education on Organic Waste Management – The City Government shall launch comprehensive campaigns to raise awareness about the benefits and methods of organic waste reduction, segregation, and recycling. These campaigns will utilize various media platforms to reach a diverse audience.

Additionally, workshops and training sessions shall be organized regularly for households, institutions, and businesses, focusing on practical methods to manage organic waste effectively.

CHAPTER 6. Electronic Waste and Extended Producer Responsibility

Section 41. E-waste Definition and Classification – Electronic waste, commonly referred to as e-waste, encompasses discarded electrical or electronic devices, components, and materials. For the purpose of clarity, consistency, and effective management within the City, the following are deemed to be classified as e-waste:

A) Large Household Appliances: This category includes large electronic items typically used in households such as washing machines, refrigerators, air conditioners, and ovens.

B) Small Household Appliances: This encompasses smaller electronic items such as vacuum cleaners, toasters, coffee makers, and microwaves.
C) Information Technology (IT) and Telecommunications Equipment: Items in this category include computers (desktops, laptops), printers, mobile phones, telephones, fax machines, and related accessories.
D) Consumer Equipment: This category includes radios, televisions, digital cameras, audio equipment, and musical instruments.
E) Lighting Equipment: Fluorescent lamps, high-intensity discharge lamps, LED lamps, and other equipment designed to produce light.
F) Electrical and Electronic Tools: Any tools for use in households or businesses that require power to operate, excluding large stationary tools and appliances. This includes drills, saws, sewing machines, and lawnmowers.
G) Toys, Leisure, and Sports Equipment: Electronic toys and games, computer gaming systems, electric trains or car racing sets, and other personal leisure items.
H) Monitoring and Control Instruments: This category covers smoke detectors, heating regulators, thermostats, and other similar monitoring or control instruments.
I) Automatic Dispensers: Electronic devices designed to release a set amount of substance, product, or item, including cash dispensers and vending machines.
J) Wellness Equipment: such as various dental and/or medical equipment.

Section 42. E-waste Collection and Drop-off Points – The City Government shall establish and manage dedicated e-waste collection points strategically located throughout the city to facilitate the easy and safe disposal of electronic waste by residents and businesses. These points shall be accessible, well-signposted, and equipped to handle the specific requirements of e-waste. The CESD is hereby authorized to identify the location of a Treatment Storage Disposal Facility within the City of Bacoor to be submitted to the City Mayor within thirty (30) days from the effectivity date of this Ordinance.

Section 43. E-waste Processing and Recovery Facilities – The City Government shall facilitate the establishment of licensed e-waste processing and recovery facilities within its jurisdiction. The City Government shall maintain an updated registry of all licensed e-waste processing and recovery facilities. In establishing processing and recovery facilities, the following must be included:

A) All facilities must be equipped with appropriate technology for dismantling, sorting, and safely processing various categories of e-waste.
B) Measures shall be in place to prevent the release of hazardous substances during e-waste processing.
C) E-waste facilities shall adopt methods and technologies aimed at maximizing the recovery of valuable materials, such as metals, plastics, and rare earth elements.
D) The City Government shall promote research and partnerships to improve the efficiency of resource recovery from e-waste.

E) Residues resulting from e-waste processing, which are not recoverable, must be treated and disposed of in an environmentally sound manner. The City Government shall provide guidelines for the safe disposal of such residues.
F) E-waste processing facilities shall ensure the safety and well-being of all workers by providing necessary protective equipment, regular health check-ups, and training on safe handling of e-waste.
G) Emergency response protocols shall be established and regularly updated to handle potential accidents or incidents at the facilities.
H) The CESD and the City government is hereby empowered to enter into a contract with private juridical entities and persons engaged in the business of treating e-waste.

Section 44. Extended Producer Responsibility (EPR) – Extended Producer Responsibility (EPR) is an environmental policy approach wherein the responsibility for the post-consumer phase of a product, including collection, recycling, and final disposal, is shifted back to the product's producer. Manufacturers, importers, and distributors of electronic goods are hereby mandated to establish take-back systems, and shoulder responsibilities related to the end-of-life management of their products.

Section 45. Scope of EPR – EPR shall be implemented with the following scope:
A) Products Covered: EPR regulations shall apply to all products that can result in significant environmental impacts at the end of their life cycle, including but not limited to electronics, batteries, packaging materials, and certain hazardous goods.
B) Producers Defined: For the purposes of EPR, a producer is any entity that designs, manufactures, sells, or imports products covered by the EPR framework within the City's jurisdiction.

Section 46. Product Take-Back Systems –
A) Mandatory Take-Back: Producers under the EPR framework shall establish systems for the return of used or end-of-life products, ensuring that they are properly collected and treated.
B) Convenient Collection Points: Producers, importers, and distributors shall set up accessible collection points in their respective offices for consumers to return their products easily. At the minimum, there must be collection points located at retail outlets and producers' designated service centers.
C) Awareness Campaigns: Producers shall carry out public awareness campaigns to educate consumers about the importance of returning products for proper disposal and the available take-back systems.
D) Transparent Record Keeping: Producers shall maintain records of the quantity and type of products returned, processed, and the end treatment given. This data shall be periodically reported to the City Government.
E) Safe Disposal: Returned products shall be processed in a manner that prioritizes re-use, recycling, and recovery of materials. For products that cannot be recycled, environmentally sound disposal methods shall be used.

Section 47. Penalties for Non-Compliance with EPR – The following are prohibited and carry the corresponding penalties:

A) Absence of Mandatory Take-Back System: Any producer, retailer, or distributor who fails to implement a mandatory take-back system as prescribed shall be fined the amount of Five Thousand Pesos (Php 5,000.00) and shall also lead to the suspension of their business permit for as long as the offender has not complied with the applicable provision of this ordinance.
B) Lack of Convenient Collection Points: Any entity required to provide collection points, but found lacking in providing such convenient locations for consumers, shall be fined an amount of Five Thousand Pesos (Php 5,000.00), along with a mandatory review of the entity's waste management practices by CESD.
C) Concealment of Mandatory Take-Back System from Consumers: Entities found guilty of intentionally hiding or misrepresenting the existence of a mandatory take-back system to consumers shall be fined an amount not more than Five Thousand Pesos (Php 5,000.00). Subsequent violations shall lead to the suspension of the business entity's various permits issued by the City Government for One (1) Year or to the closure of the said business depending on the severity of the violation as determined by the City Mayor.
D) Falsification of Records: Any entity found to be falsifying records related to e-waste management, take-back systems, or any other aspect covered under this Chapter shall be fined Five Thousand Pesos (Php 5,000.00) for every offense. The City shall also initiate the filing of criminal charges as applicable under the relevant penal laws.
E) Non-compliance with CESD Guidelines for Safe Disposal: Entities not adhering to the guidelines set forth by CESD concerning safe disposal practices shall be fined an initial amount of Five Thousand Pesos (Php 5,000.00) and shall warrant a temporary suspension of operations until full compliance is achieved.

All fines collected under this section shall be deposited in the Bacoor Environment Fund.

Section 48. Eco-Design and Green Production – Producers are encouraged to integrate environmental considerations during the design phase of their products. This shall include:

A) Designing products for longer life spans, repairability, reusability, and ease of recycling are to be prioritized.
B) Reduction of hazardous substances and minimizing resource use in product designs are strongly recommended.
C) Adoption of clean and energy-efficient production processes.
D) Minimization of waste generation during the production phase and maximizing the use of recycled or sustainable materials.
E) Implementing sustainable packaging practices that reduce waste and are easily recyclable.

Section 49. Public Awareness and Education on E-waste Management – The City Government shall actively educate and raise awareness among residents, businesses,

and institutions about the environmental and health hazards of improper e-waste disposal and the benefits of responsible recycling and disposal. This may be through multimedia campaigns, including digital, print, and broadcast mediums; collaborative partnerships with local organizations, educational institutions, and businesses; Educational Workshops and Training Programs; and the provision of Online Information and Resources.

CHAPTER 7. Construction and Demolition Waste

Section 50. Definition and Scope of Construction and Demolition Waste - Construction and Demolition Waste (C&D Waste) refers to the waste material generated during the construction, remodeling, repair, and demolition of buildings, roads, bridges, and other structures. This waste includes:

A) Construction Waste: Refers to any waste material resulting from the construction of new structures or facilities, including waste from site preparation, such as dredging materials, tree stumps, and rubble.
B) Demolition Waste: Pertains to waste generated from the complete or partial demolition of existing structures, including waste from the dismantling of structural components and internal fittings.
C) Refurbishment Waste: Denotes the waste produced from the remodeling or retrofitting of existing structures, including any material removed during the refurbishment process.
D) Roadwork Waste: Encompasses waste resulting from the construction, repair, or demolition of roads, highways, bridges, tunnels, and railway tracks. This includes, but is not limited to, asphalt, tarmac, and excavated soil.
E) Site Clearance Waste: Involves waste materials from clearing land for construction, including vegetation, soil, and debris.

Section 51. Mandatory Waste Management Plans for Construction Sites - Prior to initiating any construction, demolition, renovation, or remodeling activity that requires a City permit, all contractors, developers, or relevant entities must submit a detailed Waste Management Plan (WMP) for review and approval by the City Environment Services Department (CESD). The following guidelines apply for the creation, submission, and processing of WMPs:

A) The WMP shall detail strategies and methodologies for waste reduction, segregation, reuse, recycling, and proper disposal during the project's lifecycle.
B) The WMP shall contain the following:
    a) Project Information: Name, location, type, and size of the project, and expected start and completion dates.
    b) Waste Assessment: Estimate of the types and volumes of C&D waste materials expected to be generated.
    c) Waste Reduction Strategies: Techniques and methodologies that will be employed to minimize waste generation, including efficient materials procurement and optimized design techniques.

d) Segregation Protocols: Detailed methods for segregating waste at source, ensuring minimal contamination and promoting reuse and recycling.
e) Storage and Collection: Description of onsite storage solutions, including dedicated bins, chutes, and containers, and the frequency and method of waste collection.
f) Disposal Protocols: Identification of authorized disposal facilities for waste that cannot be recycled or reused, ensuring compliance with City guidelines.
g) Recycling and Reuse Strategies: Methods to be used for recycling or repurposing waste materials, including partnerships with recycling facilities and procedures for onsite reuse.
h) Transportation: Logistics detailing the transport of waste from the construction site to disposal, recycling, or storage facilities, ensuring minimized environmental impact.
i) Monitoring and Reporting: Systems in place for monitoring waste generation and management during the project's lifecycle, including periodic reports to CESD.

C) CESD shall review submitted WMPs within 30 days of receipt. Incomplete or inadequate plans will be returned with comments for revision. Construction activities may not commence until the WMP receives CESD's approval.
D) Contractors shall strictly adhere to the approved WMP throughout the construction project. CESD is authorized to conduct random onsite audits to ensure compliance with the WMP and to verify the accuracy of the reported data. Any deviations from the approved WMP must be justified and reported to CESD in a timely manner.

Section 52. Storage Requirements for Construction Materials - All construction materials shall be stored in a manner that prevents their contamination, deterioration, or waste. Measures shall be taken to prevent the release or escape of materials due to factors such as precipitation, wind, weather, or human activity. Storage areas should be clearly demarcated, labeled, and segregated based on material type and intended use.

Hazardous materials, including flammable, corrosive, or toxic substances, shall be stored in accordance with City safety guidelines and in areas equipped with appropriate safety equipment. Any contractor, developer, or relevant entity found in violation of this paragraph shall be fined Five Thousand Pesos (Php 5,000.00) and the construction activities shall be suspended until such time that these hazardous materials are properly stored as determined by the CESD.

Section 53. Recycling and Reuse Protocols for Recovered Construction Materials - It shall be the responsibility if contractors, developers, and other relevant entities to safely and sustainably reuse and recycle recoverable construction materials. The City Environment Service Department (CESD) shall formulate specific protocols for recycling and reusing various types of construction materials. This shall include, but shall not be limited to, the following minimum protocols:

A) Material-Specific Guidelines:
    a) Concrete and Masonry: These materials shall be crushed and can be repurposed as aggregate for road construction, erosion control, or base materials for new construction.
    b) Wood: Recovered timber shall be inspected for integrity, treated if necessary, and repurposed for new construction, furniture, or mulch.
    c) Metals: Metals, including steel, iron, and copper, shall be sent to appropriate recycling facilities for processing and reintroduction into the manufacturing chain.
    d) Glass: Recovered glass should be cleaned, processed, and used in the production of new glass products or as aggregate in construction.
    e) Asphalt: Reclaimed asphalt shall be processed and integrated into new pavement projects.
    f) Gypsum (Drywall): Recycled gypsum can be processed into new drywall or used as a soil amendment in agriculture.
B) Decontamination Processes:
    a) All recovered materials intended for recycling or reuse must undergo appropriate decontamination processes to ensure they are free of contaminants, harmful substances, or residues.
    b) CESD shall outline standard decontamination processes for each material type and ensure strict adherence.

Developers, contractors and/or owners of construction sites that do not comply with the with CESD guidelines for recycling and reusing construction materials shall be required to pay a fine of Five Thousand Pesos (Php 5,000.00).

Section 54. Transportation and Handling of Construction and Demolition Waste - All entities involved in the transportation of C&D waste shall secure a transportation permit from the City Environment Service Department (CESD). The permit shall stipulate the approved routes, allowable hours for transportation, vehicle requirements, and any other conditions deemed necessary.

Entities found violating the transportation and handling guidelines will be fined an amount of Five Thousand Pesos (Php 5,000.00).

Section 55. Material Recovery in Demolition - Before any demolition permit is issued, the responsible entity shall conduct a comprehensive Material Recovery Assessment (MRA). The MRA will detail the types, quantities, and potential reuse or recycling options for materials present in the demolition site. Based on the MRA, a detailed Material Recovery Plan (MRP) shall be drafted, outlining the methods, equipment, and processes to be employed during the demolition to ensure optimal material recovery. All recovered materials shall be transported to designated MRFs, as established in Chapter 4, Section 31(b) of this Article where they will be further processed, stored, or prepared for sale or reuse.

The City Government, through the CESD, Office of the Building Official, and City Engineering Office, reserves the right to inspect demolition sites and ensure

compliance with MRPs. The failure of the contractor or owner of the construction site to implement the MRP, without proper justification, shall make such contractor or owner liable to pay a fine of Five Thousand Pesos (Php 5,000.00).

Section 56. Use of Funds - Collection Fees/ Use of funds- The CESD shall collect a C&D waste collection fee amounting to One Hundred Pesos (Php100.00) per kilogram of waste to be paid by the contractor, developer, or owner of the construction site before the waste can be collected.

All fines and fees collected under this Chapter shall be deposited in the Bacoor Environment Fund.

CHAPTER 8. Miscellaneous

Section 57. Processing of Bulk Waste - "Bulk waste" refers to items that are too large to be accepted by regular waste collection practices due to their size, weight, or volume. All entities generating bulk waste, whether households, businesses, or institutions, are required to dismantle or break down bulk waste items to a manageable size or state suitable for collection.

Section 58. Non-Compliance with Bulk Waste Processing - Entities found violating Section 57 of this Article shall be fined an amount of Five Thousand Pesos (Php 5,000.00).

Section 59. Prohibition on Littering - No person, business, or entity shall intentionally discard, drop, or dispose of litter in places other than designated receptacles or litter bins provided for that purpose.

This prohibition applies to all public spaces including, but not limited to, streets, sidewalks, parks, playgrounds, public buildings, waterways, and other areas open to the public.

For the purposes of this section, "litter" refers to any solid waste that is discarded, used, or consumed in a manner which is not in accordance with the City's waste management policies, including any item discarded or left behind as a result of a public or private gathering.

Any person found in violation of this prohibition shall be penalized with a fine an amount of Five Thousand Pesos (Php 5,000.00)

Section 60. Development and Promotion of Markets for Reclaimed Materials - The City Government shall initiate efforts to identify potential markets and industries that can utilize reclaimed materials. Incentives, such as discounts on permit fees and use of social media channels, will be provided to businesses and industries that utilize reclaimed materials in their production processes.

ARTICLE V. WATER QUALITY AND POLLUTION CONTROL

Section 1. Operative Principles - Water resources in the City shall be managed (a) for the primary purpose of meeting indefinitely the basic requirement for potable water of all residents of Bacoor and (b) for the secondary purpose of securing the availability of adequate supplies of water for the growing industrial, recreational and commercial development activities through water resources pricing in accordance with PD 1198, and through the institution of local water pollution control. Further, it is hereby declared the policy of the city government that water resources in the City shall be equitably distributed.

In addition, prioritizing the preservation of aquatic ecosystems and mitigating the effects of climate change will be integral in water resources management. All developments and activities shall strive for a minimal ecological footprint on water resources.

Section 2. Water Resources Management Plan - The City Environment Service Department (CESD) shall, together with the, DENR, DPWH and other national government line agencies, local water districts and private sector groups formulate a strategic management plan for efficient and sustainable utilization of water resources.

The formulated plan should incorporate new technological advancements and data-driven methods to monitor water consumption and contamination, ensuring adaptive and progressive management.

Section 3. Protection of Public Water Infrastructures - The CESD shall identify the potential watersheds, inter-City waterworks and irrigation projects. It shall also ensure that engineering works and infrastructure projects within the City do not adversely impact on water quality and project accessibility.

Section 4. Drainage Systems - The CESD shall recommend necessary measures to ensure that adequate City and barangay drainage systems are established and maintained to prevent the negative effects of all types of effluents on both surface and underground water quality. Upon the CESD's recommendation, the Mayor shall provide assistance to barangays for the purpose of ensuring that solid or liquid wastes are properly disposed for the protection of water resources.

Furthermore, it is mandatory for the drainage systems to have periodic quality checks and incorporate nature-based solutions like rain gardens and bio-swales to improve water quality and recharge groundwater.

Section 5. Health and Sanitation Measures - The CESD and the Office of City Health Services (OCHS) shall study and recommend appropriate measures to improve environmental sanitation by expanding the use of sanitary toilets for waste disposal. Such studies must include, but not be limited to, possible direct investments in public health education and strict enforcement of the Plumbing Code and Sanitation Code.

The CESD shall spearhead initiatives to not only study but also implement progressive sanitation practices, promote the adoption of decentralized wastewater treatment systems, and champion community-led approaches for water sanitation.

Section 6. Water Usage and Classification - The provisions of DENR Administrative Order No. 34, series of 1990, otherwise known as the "Revised Water Usage and Classification", and amendments thereto, are hereby adopted.

Section 7. Wastewater Treatment and Management - Every industrial, commercial, and residential establishment in the municipality must have appropriate wastewater treatment systems in place. Regular monitoring and auditing of these systems will be conducted to ensure that they meet the set guidelines and standards.

Section 8. Rainwater Harvesting - Promotion of rainwater harvesting techniques and the establishment of community-based rainwater storage systems will be made mandatory within sixty (60) days from the effectivity date of this ordinance to augment water supply and reduce stormwater runoff. Subdivision developers and homeowners' associations shall be required to install rainwater harvesting facilities within their project/community within the period to be determined by the City Mayor upon consultation with the CESD and City Engineering Office (CEO) based on the unique conditions prevailing in every community within the City. The CESD and the CEO shall approve the design of the said facilities.

Section 9. Water Quality Monitoring - A continuous water quality monitoring system, using both manual methods and digital sensors, will be established by the CESD. This system will ensure that water sources are free from contaminants, and any deviations from the standard are promptly addressed.

Section 10. Riparian Zone Protection - All water bodies within the City will have protected riparian zones, which will serve as buffer areas. These zones will be off-limits for any kind of construction and will be maintained to ensure they perform their ecological functions.

Section 11. Prohibited Acts and Penalties - The following acts related to water quality and pollution control are hereby declared prohibited within the jurisdiction of the City. Violation of any of the following provisions will result in the payment of fines as provided for in this section:

A) Illegal Discharge: Discharging or allowing to discharge, either directly or indirectly, any hazardous chemicals, untreated wastewater, or pollutants into water bodies, stormwater drains, or any part of the City's water system. This carries a penalty of a fine of Five Thousand Pesos (Php 5,000.00).
B) Lack of Wastewater Treatment: Operating an industrial or commercial establishment without an appropriate wastewater treatment system in place carries a penalty of a fine of Five Thousand Pesos (Php 5,000.00).
C) Tampering with Water Quality Monitoring Equipment: Damaging, tampering, or interfering with water quality monitoring equipment, devices, or systems

installed by the City or other competent authorities carries the penalty of a fine of Five Thousand Pesos (Php 5,000.00).

D) Unlawful Construction: Engaging in construction or development activities within designated riparian zones or buffer areas without appropriate permits issued by the City Government shall result in the imposition of a fine of Five Thousand Pesos (Php 5,000.00) for every day that the developer/owner of the construction project continued constructing from the date it/he/she received a notice of violation from the CESD.

E) Obstruction of Drainage Systems: Any negligent or intentional act that results in the blockage or obstruction of the City's drainage systems with waste, debris, or other materials shall result in the imposition of a fine amounting to Five Thousand Pesos (Php 5,000.00) against the contractor, developer, and/or owner of the property, construction or development project, or business establishment that caused the blockage or from which the blockage originated. A person, business establishment, or juridical entity is deemed to have negligently or intentionally blocked or obstructed said drainage systems if they knew or could have known that the said act would result in such blockage or obstruction and did not do anything to prevent it from happening.

F) Unauthorized Extraction: Illegally extracting groundwater or drawing water from City reservoirs without proper permits carries the penalty of a fine of Five Thousand Pesos (Php 5,000.00) for every cubic meter of illegally extracted water as determined by the CESD.

G) Misrepresentation in Reporting: Providing false information or deliberately misrepresenting facts related to water usage, discharge, or quality during mandatory reporting or inspections carries the penalty of a fine of Five Thousand Pesos (Php 5,000.00). The same penalty applies to any person who distributes misleading information regarding proper water use policies or actively discourages participation in City-sponsored public awareness programs related to water quality and conservation.

H) Lack of Approved Rainwater Harvesting Facility/ies: The failure of a subdivision developer, homeowners association, or building owner/manager to install a rainwater harvesting facility with a design approved by the CESD within their premises despite receipt of a notice of violation from the said office shall result in the payment of a fine of P5,000.00 and the suspension of collection of garbage at the said subdivision, community, or building until such time that the said facility is installed.

All fines collected under this section shall become part of the Bacoor Environment Fund.

ARTICLE VI. AIR POLLUTION AND NOISE POLLUTION, INCLUDING CARBON SEQUESTRATION

Section 1. Operative Principles - The City government acknowledges the significance of clean air and a noise pollution-free environment for the well-being of its residents. As the City progresses industrially and commercially, it commits to proactive measures that curb the increase in air and noise pollutants, emphasizing the transition to sustainable energy sources and green infrastructure. The City will leverage technologies to promote carbon sequestration as a measure to counteract emissions.

In addition, the following principles shall guide the implementation of the Sections of this Article:

A) Holistic Approach: The City will approach air and noise pollution not as isolated issues but interconnected challenges, considering their cumulative impacts on health, environment, and economic vitality.
B) Preventive Action: Before green lighting any development or industrial project, potential air and noise polluting elements will be thoroughly evaluated to ensure preventive measures are put in place.
C) Public Participation: Recognizing that community engagement is key to understanding and mitigating air and noise pollution, the City will regularly solicit public input, both in planning and decision-making processes.
D) Continuous Improvement: The City will invest in research and innovation to continuously update its standards and best practices related to air and noise pollution and carbon sequestration, ensuring they reflect the latest scientific understanding.
E) Environmental Justice: Efforts to combat air and noise pollution will prioritize communities that have been disproportionately impacted, ensuring that all City residents benefit equally from clean air and a noise-free environment.
F) Transparency: The City is committed to operating with transparency by regularly publishing air and noise pollution data, actions taken, and the progress of carbon sequestration initiatives, thereby keeping the public informed.
G) Partnerships for Progress: The City believes in fostering partnerships with industries, academic institutions, civil society, and neighboring regions to learn, share, and co-create solutions for air and noise pollution.

Section 2. Vehicle Emission Control - The City recognizes the significant contribution of vehicular emissions to air pollution, which poses health risks to residents and disrupts ecological balance. Ensuring that vehicles within the City's boundaries conform to environmentally sound standards is paramount. The City Environment Service Department (CESD), the Bacoor Traffic Management Department, the City Inspection and Compliance Unit, and the various barangays of the City in coordination with the Land Transportation Office (LTO) and the DENR, shall enforce all existing laws and city ordinances prohibiting the emission of noxious fumes from motor vehicles and shall have the authority to impose a fine of Five Thousand Pesos (Php 5,000.00) against the driver and/or registered owner of a motor vehicle that violated the said laws or ordinances.

Furthermore, to enhance vehicular emission control in the City, the following measures shall be implemented:

A) Frequent Monitoring and Updates: Regular audits of the permitting system will be conducted to ensure its effectiveness, with provisions for necessary updates based on technological advancements and evolving environmental standards.
B) Transition to Green Transportation: The City will encourage the use of electric and hybrid vehicles through incentives, infrastructure support like charging stations, and public awareness campaigns.
C) Public Transportation Enhancement: Strategies will be developed to modernize public transportation, ensuring they are energy-efficient and produce minimal emissions. This includes the potential expansion of electric bus routes and encouraging shared mobility solutions.
D) Regular Vehicle Checks: Mandatory regular emission checks will be instated for all vehicles, with stricter penalties for non-compliance. Vehicles not meeting the emission standards will be required to undergo necessary maintenance.
E) Educational Initiatives: Public campaigns will be launched to educate residents about the importance of regular vehicle maintenance, its positive effects on reducing emissions, and the overall benefits to public health and the environment.
F) Research and Collaboration: The City, through the Smart Bacoor Renewability Research Center, will collaborate with academic institutions and environmental organizations to research innovative solutions to reduce vehicle emissions, supporting pilot projects and studies that offer promising results.
G) Incentives for Low-Emission Vehicles: Tax breaks, rebates, or other incentives will be offered to residents who purchase and use vehicles with lower emissions or those that utilize alternative, cleaner fuels.

Section 3. Industrial Pollution Control and Carbon Sequestration - The official of City Environment Service Department, in tandem with the DENR, will ensure that industries in the City comply with the air quality standards and will promote practices that contribute to carbon sequestration. Industries are also encouraged to adopt modern technologies that minimize carbon footprints and enhance air quality.

The City Environment Service Department (CESD), the Business Permits and Licensing Department, the City Inspection and Compliance Unit, and the various barangays of the City in coordination with the DENR, shall enforce all existing laws and city ordinances prohibiting the emission of noxious fumes from motor vehicles and shall have the authority to impose a fine of Five Thousand Pesos (Php 5,000.00) against the manager, supervisor or owner of the business establishment or factory that violated the said laws or ordinances. Additionally, the various permits issued by the City Government in favor of the said business or factory shall be suspended until such time that the said violation has been resolved in compliance with prevailing laws, ordinances, or government regulations related to air quality maintenance and carbon sequestration.

To further strengthen the City's stance on industrial pollution control and promote carbon sequestration:

A) Regular Audits and Compliance Reporting: Industries will be mandated to submit periodic environmental compliance reports, detailing their emission levels, efforts in carbon sequestration, and adherence to air quality standards.
B) Mandatory Carbon Offsetting: Large-scale industries with significant emissions will be required to offset their carbon footprints through initiatives like tree planting, investing in renewable energy, or supporting carbon capture and storage projects.
C) Training and Workshops: The City will conduct regular training sessions and workshops to familiarize industries with the latest sustainable technologies, efficient waste management practices, and methods to optimize carbon sequestration.
D) Public-Private Collaborations: Encourage collaboration between the public sector, private enterprises, and research institutions to develop and implement innovative solutions for pollution control and carbon sequestration.
E) Awareness and Recognition: The City will host annual events or awards recognizing industries that have made significant contributions to reducing pollution and enhancing carbon sequestration. Such recognition will foster a competitive spirit among industries to adopt sustainable practices.

Section 4. Comprehensive Air Quality, Noise, and Carbon Monitoring -
The City Environment Service Department, collaborating closely with the DENR, the various barangays, homeowners' associations and community associations within the City, will establish a comprehensive system for monitoring air quality, noise levels, and carbon sequestration potential, ensuring transparency and public awareness.

To bolster this monitoring initiative, the City shall do the following:

A) Integrated Monitoring Stations: The establishment of advanced monitoring stations across strategic locations within the City that can simultaneously measure air quality, noise levels, and assess carbon sequestration potential.
B) Real-time Data Access: Launch of a City-sponsored digital platform or mobile application where citizens can access real-time data on air quality and noise levels, fostering a culture of awareness and proactive response.
C) Annual Reports: Publishing comprehensive annual reports detailing trends, findings, and potential areas of concern related to air quality, noise pollution, and carbon sequestration. These reports will be made available both digitally and in print.
D) Collaborative Research: The City, through the Smart Bacoor Renewability Research Center, will be partnering with academic and research institutions to delve deeper into data interpretation, potential technological advancements for improved monitoring, and strategies to enhance carbon sequestration.
E) Emergency Response Protocols: In the event of unforeseen deteriorations in air quality or excessive noise pollution, protocols will be in place for immediate public alerts and swift corrective measures.

F) Enhanced Noise Pollution Mapping: Identifying and mapping 'quiet zones' and 'noise hotspots' in the City. Such mapping will inform urban planning decisions and potentially guide noise mitigation efforts.
G) Carbon Potential Surveys: Periodic surveys and studies to identify areas with high carbon sequestration potential, promoting conservation, and identifying opportunities for carbon sink development.

Section 5. Public Awareness and Education - The City will launch ongoing public awareness campaigns, emphasizing the importance of clean air, noise pollution control, and the benefits of carbon sequestration, promoting individual and collective responsibility.

Section 6. Collaboration with Industries for Cleaner Practices - The multi-sectoral Environmental Advisory Board will foster collaborations with industries to share best practices in reducing air pollution, noise abatement, and enhancing carbon sequestration. This body will also advise the City Mayor on policy adjustments to further the city's green goals.

Section 7. Acquisition and Implementation of Carbon Sequestration Technologies - Recognizing the ever-increasing challenges posed by climate change and the imperative role of cities in counteracting its detrimental effects, the City Government is committed to leading the way in adopting innovative carbon sequestration technologies. For this purpose, the City Government shall acquire carbon sequestration technologies for the purpose of loaning the same at a discounted rate to industries in Bacoor that have been identified by CESD to have high amounts of carbon emissions.

For the benefit of the public and the implementing authorities of this Code, the following are examples of Carbon Sequestration Technologies:

A) Bioenergy with Carbon Capture and Storage (BECCS): A method that combines the generation of energy from biomass with the capture and storage of carbon dioxide. This process results in a net reduction of CO2 in the atmosphere.
B) Direct Air Capture: Technologies that directly absorb carbon dioxide from ambient air and then release it for storage or utilization.
C) Enhanced Weathering: The use of minerals, like basalt or olivine, to naturally react with CO2, turning it into a solid carbonate that can be stored.
D) Urban Forestry and Green Infrastructure: Creating urban forests, vertical gardens, and green roofs that naturally sequester carbon while also providing urban cooling and recreational benefits.
E) Blue Carbon Technologies: Conservation, restoration, and sustainable management of coastal ecosystems like mangroves, seagrass meadows, and tidal salt marshes which have a high capacity to absorb and store CO2.
F) Soil Carbon Sequestration: Implementing agricultural practices that increase the amount of carbon being absorbed and held in the soils, such as no-till farming, agroforestry, and cover cropping.

Section 8. Guidelines for Acquisition of Carbon Sequestration Technologies - In implementing Section 7 of this Article, the following guidelines shall be determining the types of Carbon Sequestration Technology to be acquired by the City Government:

A) Safety First: Any technology being considered for acquisition must have been rigorously tested and deemed safe for both the environment and human health.
B) Proven Efficacy: Technologies must have a proven track record of effectively sequestering carbon in real-world scenarios, validated by recognized scientific institutions.
C) Economic Feasibility: While the environment remains our top priority, technologies must also be economically viable for large-scale implementation, ensuring judicious use of public funds.
D) Local Suitability: Acquired technologies should be appropriate for our City's specific environment, climate, and urban structure.
E) Scalability: Preference will be given to technologies that can be scaled up efficiently as the City grows and evolves.
F) Maintenance and Longevity: Technologies should have a reasonable lifecycle and not demand overly frequent or prohibitively expensive maintenance.

Section 9. Lease of Carbon Sequestration Technologies to Business Establishments - Recognizing the pivotal role that businesses play in the City's efforts to combat climate change, yet understanding that not all enterprises have the financial capability to independently adopt carbon sequestration technologies, the City Government is initiating a program to lease such technologies to eligible business establishments. The following shall govern this initiative:

A) Eligibility Criteria:
   a) Financial Constraints: The business must provide evidence of financial constraints that prevent them from purchasing the necessary carbon sequestration technologies outright. This can be demonstrated through financial statements, bank records, or other credible financial documents.
   b) Environmental Impact: Preference will be given to businesses with higher carbon footprints or those operating in industries that are traditionally recognized as high emitters of greenhouse gases.
   c) Commitment to Sustainability: Businesses must express a genuine interest and commitment to reducing their carbon footprint. This can be demonstrated through past practices, business plans, or other relevant documents.
   d) Local Operations: Only businesses registered and operating within the City's jurisdiction will be eligible for this program.

B) Lease Provisions:
   a) Duration: The lease duration will be determined based on the type of technology, its expected lifecycle, and the business's projected needs.
   b) Maintenance Responsibilities: While the City will provide the technology, the lessee business will be responsible for its regular

maintenance and upkeep, ensuring that it functions optimally throughout the lease period.

c) Training: The City will offer initial training sessions on the operation and maintenance of the leased technologies to ensure that the businesses can use them effectively and safely.
d) Lease Rates: Lease rates will be set at a subsidized cost, keeping in mind the financial constraints of the lessee business. Payment plans can be negotiated based on the business's financial capabilities.
e) Periodic Assessment: Businesses will be required to participate in periodic assessments to measure the effectiveness of the technology in reducing their carbon footprint. This will aid in identifying potential areas of improvement and ensuring that the program's goals are being achieved.
f) Renewal and Transition: At the end of the lease term, businesses will have the option to renew the lease, transition to newer technologies, or explore opportunities to purchase the technology, if financially viable.

C) Application Process:

a) Businesses interested in availing the lease program should submit a formal application detailing their need, desired technology, evidence of financial constraints, and commitment to sustainability.
b) The City Environment Service Department will review applications, conduct on-site inspections if necessary, and make recommendations based on the business's eligibility and the program's objectives.
c) Successful applicants will be notified and required to sign a lease agreement outlining the terms, responsibilities, and other pertinent details. The parties to the agreement shall be the applicant and the City Government, through the City Mayor. In connection with this, the City Mayor is hereby authorized to sign said lease agreements provided that the Sangguniang Panlungsod has authorized the Mayor to sign the same.

Section 10. Incentives for Businesses Investing in Quality Carbon Sequestration Technology - Understanding the crucial role that businesses play in addressing climate change, the City Government endeavors to incentivize those establishments that take proactive steps in investing in quality carbon sequestration technologies. This section provides a framework for granting such incentives, ensuring that the technology adopted is not only of superior quality but is also optimally utilized. The following shall govern the process by which incentives are granted:

A) Eligibility Criteria:

a) Technology Standards: The carbon sequestration technology procured by the business should meet the quality standards set forth by the DENR and the City Environment Service Department. It should be recognized by reputable environmental bodies and should have proven efficacy in carbon capture.

b) Usage Commitment: Businesses must demonstrate consistent usage of the technology to its optimal capacity. Periodic monitoring and verification will be conducted to ensure this.

c) Local Operations: Only businesses registered and operating within the City's jurisdiction will be eligible for this incentive program.

d) Proof of Purchase: Valid documentation, including purchase receipts, warranty papers, and other relevant records, should be provided as evidence of technology ownership.

B) Incentive Provisions:

a) Grants for Technology Upgrades: Eligible businesses may receive financial grants that can be utilized for subsequent upgrades to their existing carbon sequestration technology, ensuring that they remain at the forefront of technological advancements.

b) Recognition Program: The City will launch an annual recognition program highlighting businesses that demonstrate excellence in their carbon sequestration efforts. This recognition will provide businesses with a green credential, enhancing their brand image and reputation in the community.

c) Subsidized Training Programs: The City will offer discounted training programs, seminars, and workshops to businesses. These programs will focus on maximizing the efficiency of carbon sequestration technologies, understanding new advancements in the field, and other relevant topics.

d) Reduced Licensing and Permit Fees: Eligible businesses can avail of reduced fees when applying for city licenses, permits, and other administrative services. This does not include tax-related fees or reductions.

C) Application Process:

a) Businesses keen on availing these incentives must submit a detailed application, including proof of technology purchase, quality certifications, operational records, and other pertinent documents.

b) The City Environment Service Department, will review the applications, conduct necessary verifications, and assess the business's adherence to the set criteria.

c) Successful applicants will be notified and granted the applicable incentives based on their technology and practices.

Section 11. Prohibited Acts and Penalties - To protect the well-being of its citizens and ensure the effective implementation of policies and standards on air quality, noise pollution, and carbon sequestration, the following acts are strictly prohibited:

A) Non-compliance with Air Quality Standards: Operating any establishment or industry that discharges pollutants in levels exceeding the city and national standards, as determined by CESD. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

B) Tampering with Carbon Sequestration Devices: Deliberately modifying, altering, or tampering with carbon sequestration devices to reduce their

efficiency or falsify their performance readings. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

C) Excessive Noise Production: Operating machinery, equipment, or conducting activities that consistently produce noise levels beyond the stipulated city standards without the necessary permits or soundproofing mechanisms. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

D) False Reporting or Documentation: Providing misleading or falsified documents, records, or reports pertaining to air and noise pollution levels, or carbon sequestration performance. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

E) Non-adherence to Carbon Sequestration Practices: For industries mandated to adopt carbon sequestration technologies, as determined by CESD, neglecting to utilize or maintain such technologies properly. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

F) Obstruction of Monitoring Efforts: Intentionally hindering or obstructing the City Environment Service Department Officer, or any authorized personnel, from conducting air quality, noise, or carbon sequestration monitoring activities. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

G) Usage of Banned or Outdated Technology: Operating or using equipment, machinery, or technology that has been deemed harmful to the environment, or phased out by the City due to excessive emissions or noise production. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

H) Unauthorized Disposal of Carbon Sequestration Waste: Disposing of waste or by-products from carbon sequestration technologies in non-designated areas or in manners that may harm the environment. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

I) Improper Maintenance of Carbon Sequestration Technologies: Failing to uphold regular maintenance schedules or ensuring the efficient operation of carbon sequestration technologies, leading to reduced efficacy. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

J) Operation Without Valid Permits: Running industrial, commercial, or residential operations known to produce significant air pollutants or noise without the necessary permits from the City Environment Service Department. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

K) Overstepping Lease Agreements: For businesses availing the City's carbon sequestration technology lease program, any misuse, reselling, or unauthorized transfer of the leased technologies. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

L) Failure to Attend Mandatory Environmental Training: Not attending or deliberately skipping required training, seminars, or workshops organized by the City regarding air and noise pollution management and carbon sequestration. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

M) Use of Prohibited Chemicals or Materials: Utilizing chemicals or materials that have been banned by the City due to their harmful environmental impacts or potential to exacerbate air and noise pollution. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

N) Hindrance to Carbon Sequestration Efforts: Intentionally impeding city-sponsored carbon sequestration efforts, such as tree-planting activities or the establishment of green spaces. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

O) Non-compliance with Mandatory Reporting: Failing to submit mandatory reports on air emissions, noise levels, and carbon sequestration progress, as required by the City for certain industries and establishments. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

P) mission of Particulate Matter Without Precaution: Causing, allowing, or permitting the emission of particulate matter from any source, including but not limited to vehicular activity, material export, construction activities, alterations, or industrial functions like loading and storing, without taking adequate precautions. Furthermore, discharging visible fugitive dust emissions beyond the property boundaries is prohibited. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

Q) Unsanctioned Handling of Volatile Compounds: Storing, handling, processing, or using volatile compounds or organic solvents without the necessary vapor emission control systems, as mandated and approved by the City Mayor in coordination with relevant national agencies. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

R) Overcapacity Operation of Pollution Sources: Operating any plant or pollution source beyond its operational capacity or the capacity of its emission control device, resulting in emissions exceeding national standards. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

S) Usage of Emission-Concealing Devices: Constructing, installing, or utilizing any device or contraption intended to conceal emissions that would otherwise be in violation of this Article's provisions. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

T) Unauthorized Construction of Industrial Chimneys: Constructing or erecting chimneys for industrial establishments that could introduce air impurities without prior clearance from the City Mayor. Note: Residential chimney construction remains exempt. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

U) Operation of Over-Polluting Vehicles: Operating any vehicle that emits air pollutants exceeding the DENR-prescribed standards. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

V) Release of Odor-Causing Air Pollutants: Releasing or permitting the emission of air pollutants that result in discernibly unpleasant odors. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

W) Exceeding Noise Standards Without Clearance: Constructing, altering, or operating any source that results in noise levels beyond ambient standards set by the DENR without securing appropriate clearances from the City Mayor. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

X) Creation of Unnecessary Noise Near Sensitive Areas: Causing or allowing excessive noise through any device in proximity to hospitals, schools, or judicial institutions. This act carries a fine of Five Thousand Pesos (Php 5,000.00).

A fine of P5,000 shall be imposed by the CESD against any person who violates the said system or any law, ordinance or government regulation pertaining to air quality maintenance, noise pollution control, or carbon sequestration.

A fine of P5,000 shall be imposed by the CESD against the manager, supervisor, or owner of any business establishment or institution that violates the said system or any law, ordinance or government regulation pertaining to air quality maintenance, noise pollution control, or carbon sequestration. Additionally, all permits issued by the City Government in favor of the said business or institution shall be suspended until such time that measures deemed effective and sufficient by the CESD to maintain healthy air quality standards, prevent noise pollution, and effectuate carbon sequestration are implemented by the said business or institution.

ARTICLE VII. BIODIVERSITY AND CONSERVATION, INCLUDING THE PROTECTION AND CONSERVATION OF MANGROVE FORESTS AND MARINE LIFE

Section 1. Purpose and Declaration of Policy - The City recognizes the invaluable role that biodiversity plays in maintaining ecological balance, enhancing resilience against natural calamities, supporting socio-economic activities, and enriching the cultural and natural heritage of our community. With coastal ecosystems, particularly mangrove forests and marine life, being crucial in this role, it becomes imperative to prioritize their conservation and protection.

In adherence to this, it is hereby declared the policy of the City to:

A) Commit to the protection, conservation, and sustainable use of its biological resources, particularly its mangrove forests and marine ecosystems, ensuring their health, functionality, and vitality for present and future generations.
B) Promote scientific research and the application of best practices in the management, restoration, and utilization of these vital ecosystems, ensuring that actions are rooted in sound science and tailored to local conditions.
C) Engage in collaborative efforts, fostering partnerships with national agencies, non-government organizations, local communities, academic institutions, and other stakeholders, recognizing that the success of biodiversity conservation is a shared responsibility.
D) Ensure that all development initiatives and economic activities within the City's jurisdiction do not compromise the health and integrity of its biodiversity, adopting a proactive approach in impact assessments, mitigations, and adaptive strategies.
E) Educate and raise awareness among its constituents about the importance of biodiversity, its threats, and the collective role in its protection, fostering a culture of stewardship and shared ownership.

Section 2. Definition of Terms -

A) Marine Protected Areas (MPAs): MPAs are designated areas where human activities are restricted to protect marine life and habitats.
B) No-Take Zones (NTZs): NTZs are a subset of MPAs where all extractive activities, like fishing, are prohibited.

C) Ecosystem-based Management (EBM): This approach recognizes the interconnectedness of marine ecosystems and incorporates the cumulative impacts of different sectors, such as fishing, tourism, and shipping.

D) Integrated Coastal Zone Management (ICZM): ICZM promotes the coordinated development and management of coastal resources to balance economic, social, cultural, and ecological objectives.

Section 3. Marine Protected Areas (MPAs) and No-Take Zones (NTZs) -

A) Designation - The City Government shall conduct baseline ecological and socioeconomic assessments to identify areas of high biodiversity, critical habitats, and areas under threat. The boundaries of the MPAs and NTZs shall be delineated clearly. MPAs and NTZs are considered EPCBs within the meaning of Article III of this Code.

B) Objectives - The establishment of MPAs and NTZs have dual objectives: Biodiversity Conservation and Fishery Management. Biodiversity Conservation involves the protection and conservation of marine life, habitats, and ecosystems by safeguarding breeding or feeding grounds, coral reefs, or areas with unique or endangered species. Fishery management aims to curb the negative effects of overfishing and to allow certain fish populations to regenerate, with a particular emphasis on the protection of specific species, restoration of fish stocks, or safeguarding critical life stages of marine organisms such as their breeding or juvenile periods.

C) Zones - Given that marine areas are vast and serve multiple purposes, it's often unrealistic or even counterproductive to apply a single level of protection across an entire MPA. Instead, different zones with varying protection levels allow for multiple uses while still achieving conservation goals. The following zones within MPAs and NTZs shall therefore be established, with varying rights and responsibilities associated thereto:

a) Strict NTZs: These zones offer the highest protection level, where all extractive and harmful human activities are prohibited. This includes activities like fishing, mining, or dredging. The idea is to provide marine life with areas where they can thrive undisturbed.

b) Buffer Zones: Surrounding strict NTZs, these areas have some restrictions but might still allow certain activities. For instance, limited or traditional fishing methods might be permitted, while industrial fishing or activities that can harm the habitat are prohibited.

c) Recreational Zones: These zones are designated to cater to recreational activities like snorkeling, diving, or boating. While they allow human presence and some level of interaction with the marine environment, there are still rules to ensure that these activities don't harm the ecosystem.

d) General Use Zones: These are areas within an MPA where a broader range of activities might be allowed, but with guidelines to ensure sustainable use. They might permit commercial activities, infrastructure development, or larger scale fishing, provided that the entities who wish to engage in such activities secure an Environmental Compliance

Certificate and a City Environmental Compliance Certificate pursuant to Article III of this Code.

e) **Special Zones:** Sometimes, specific zones cater to unique requirements. For instance, a research zone might be designated primarily for scientific studies, or a cultural zone might be set up to protect areas of archaeological or cultural significance.

D) **Protection and Rehabilitation Plans -** Protection and Rehabilitation Plans for MPAs and NTZs are pivotal to ensure the long-term survival and recovery of marine ecosystems. Whenever an MPA or NTZ is declared and established, the City Government shall formulate a Protection and Rehabilitation Plan that considers the following:

a) **SMART objectives -** Each plan should be based on SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) objectives:

i) Specific: Define exact areas, species, or habitats that the plan aims to protect or rehabilitate. E.g., "Increase the population of the native clownfish species in NTZ X by 20%."

ii) Measurable: Ensure the objectives can be tracked quantitatively or qualitatively. E.g., "Reduce coral bleaching incidents in MPA Y by 50% within five years."

iii) Achievable: The objectives should be realistic, given the available resources, knowledge, and time. E.g., "Rehabilitate 5 acres of damaged seagrass beds over a period of 3 years."

iv) Relevant: Ensure the objectives align with the broader goals of the MPA/NTZ, and they address the most pressing issues or challenges.

v) Time-bound: Attach a clear timeline to each objective. E.g., "Eliminate illegal fishing in NTZ Z within 24 months."

b) **Engagement of Local Communities -** Each plan should be formulated in consultation with affected communities surrounding the MPA or NTZ. Consultations should, as much as practicable, include:

i) **Initial Consultations:** Before drafting the plans, engage local communities to understand their perspective, concerns, traditional knowledge, and aspirations. This may include methods such as focus group discussions, town hall meetings, or surveys.

ii) **Co-creation of Plans:** Involve community representatives in plan drafting sessions. Consider traditional ecological knowledge, which often offers valuable insights into marine ecosystems and sustainable practices.

iii) **Public Review and Feedback:** Once a draft plan is prepared, make it available for public review. Conduct public hearings or meetings to gather feedback and suggestions.

iv) **Regular Communication and Updates:** Use community meetings, newsletters, or local media to regularly update local communities about the progress of the plans, challenges, and successes.

v) **Benefit Sharing:** Ensure that local communities share in the benefits derived from the MPA/NTZ, whether through sustainable tourism, access to certain resources, or other means. This could also include support for alternative livelihoods if traditional activities are restricted due to conservation efforts.

E) Rights and Obligations within MPAs - For each zone within a Marine Protected Area (MPA), the rights, limitations, and obligations are tailored to achieve specific conservation goals while balancing human use, to wit:

a) Strict NTZs

i) Rights - The following activities are allowed in Strict NTZs:

(1) Access for research, provided that the research is non-extractive and has minimal impact.

(2) Potential rights for traditional or indigenous practices, if any.

ii) **Limitations -** The following are prohibited in Strict NTZs:

(1) Fishing, hunting, or extraction of any resources.

(2) Anchoring or infrastructure development.

(3) Any other activity that might introduce pollutants or invasive species.

iii) Obligations - Visitors, even if engaging in activities that are allowed in Strict NTZs, are obliged to do the following:

(1) Follow City guidelines to minimize disturbance, e.g., maintaining a safe distance from sensitive habitats or wildlife.

(2) Report any illegal activities or observed threats to the ecosystem.

b) Buffer Zones

i) **Rights** - The following activities are allowed in Buffer Zones:

(1) Limited fishing or extraction, typically under sustainable practices or quotas.

(2) Access for tourism and recreational activities.

ii) **Limitations** - The following restrictions shall be put in place in Buffer Zones:

(1) Restrictions on types of fishing gear or methods to minimize impact.

(2) No large-scale commercial activities or developments.

(3) Potential limitations on vessel size or type.

iii) **Obligations** - Visitors, even if engaging in activities that are allowed in Buffer Zones, are obliged to do the following:

(1) Adhere to sustainable practices and quotas.

(2) Monitor and report catch or activity data, as required by the City.

(3) Follow City guidelines to minimize environmental impact.

c) Recreational Zones

i) Rights - The following activities are allowed in Recreational Zones:

(1) Access for recreational activities like snorkeling, diving, or boating.
(2) Potential rights for commercial operations, such as dive shops or tour operators.

ii) **Limitations -** The following restrictions shall be put in place in Recreational Zones:
(1) Restrictions on anchoring or touching sensitive habitats.
(2) Fishing shall not be allowed except for recreational fishing, subject to further regulations and guidelines to be promulgated by the City. In any case, all recreational fishing shall include the practice of "catch and release."

iii) **Obligations -** Visitors, even if engaging in activities that are allowed in Recreational Zones, are obliged to do the following:
(1) Follow guidelines to ensure the safety and minimal impact on the environment.
(2) Report any observed illegal activities or threats.

d) General Use Zones

i) **Rights -** The following activities are allowed in General Use Zones:
(1) Broad range of activities, including fishing, commercial operations, and potentially some level of infrastructure development.
(2) Extraction of resources, provided it's done sustainably.

ii) **Limitations -** The following restrictions shall be put in place in General Use Zones:
(1) Activities must adhere to sustainability guidelines or quotas set by the City Government.
(2) Destructive practices or gear types are prohibited.

F) Prohibited Acts and Penalties - The following acts are hereby prohibited. Each prohibited act carries the penalty of a fine amounting to Five Thousand Pesos (Php 5,000) if it is carried out in a Strict NTZ or a Special Zone, Four Thousand Pesos (Php 4,000) if it is carried out in a Buffer Zone, Three Thousand Pesos (Php 3,000) if it is carried out in a Recreational Use Zone or General Use Zone

a) Extractive Fishing: The act of removing marine organisms from their natural habitat with the intent of retaining the catch. This includes any method such as trawling, long-lining, netting, spearing, or using traps.

b) Anchoring on Sensitive Habitats: Placing, dropping, or dragging an anchor or associated chain across habitats identified as sensitive, such as coral reefs, seagrass beds, or other identified vulnerable marine ecosystems.

c) Discharge of Pollutants: Releasing or depositing substances, whether solid, liquid, or gaseous, that may alter the natural physical, chemical, or biological properties of the water or sediment, or be harmful to marine life.

d) Introduction of Non-native Species: The intentional or unintentional release, planting, seeding, or transporting of a species, including its

seeds, eggs, spores, or other biological material, not originally found within the MPA or NTZ.

e) **Destruction or Alteration of Habitats:** Any action leading to the significant physical disturbance, damage, or alteration of the seabed, shoreline, or marine habitats, whether by manual, mechanical, chemical, or other means.

f) **Harassment of Marine Life:** Any intentional act causing undue stress, harm, or significant behavioral change to marine organisms, such as chasing, touching, or cornering wildlife.

g) **Commercial Activities without Authorization:** Conducting any commercial activity, including but not limited to tourism operations, fishing for sale, or seabed mining, without a valid permit or outside the terms of an existing permit.

h) **Construction or Infrastructure Development:** Erecting structures, installations, or any infrastructure, whether permanent or temporary, without a valid permit issued by the City Government for that purpose and the appropriate Environmental Compliance Certificate and City Environmental Compliance Certificate.

i) **Use of Prohibited Equipment or Gear:** Employing any equipment, gear, or tools that are listed as prohibited under the Implementing Rules and Regulations of this Article due to their potential harm to marine life or habitats. This can include specific fishing nets, dredges, or certain types of boats.

j) **Collection of Biological Specimens:** Removing or collecting any marine organisms, dead or alive, parts thereof, or any other biological material for any purpose, including but not limited to research, hobby, or commercial use, without a valid permit.

k) **Engaging in Non-permitted Recreational Activities:** Conducting recreational activities, such as jet skiing, wakeboarding, or others, that are demonstrated to have significant potential impacts on the environment or disturbance to marine life.

l) **Violation of Zone-Based Restrictions on Use:** Failure to comply with the restrictions placed in each Zone pursuant to Paragraph E) of this Section.

Section 4. Integrated Coastal Zone Management (ICZM) - For every other coastal resource not declared as an MPA or NTZ, the CESD shall formulate a City coastal zoning and management plans. The plan shall be based on co-management approach where the City government shall work with resource users and build upon existing laws, particularly in the institutionalization of the Fisheries and Aquatic Resource Management Councils (FARMC) pursuant to RA No. 8550, series of 1998, Section 69.

A) Zoning - The zoning component of the plan shall classify City waters that have not otherwise been declared as MPAs or NTZs according to five (5) zones, namely:

   a) Conservation Zones: Areas identified to have high ecological value but not strictly protected as MPAs or NTZs.

b) Recreational Zones: Designated areas for recreational activities like swimming, snorkeling, kayaking, and recreational fishing.
c) Fishery Zones: Areas designated for commercial and artisanal fishing, ensuring the activity is sustainable.
d) Shipping and Navigation Zones: Corridors designated for shipping, transportation, and navigation to ensure safe and efficient marine traffic.
e) Industrial Zones: Areas designated for marine industries other than fishing, such as ports, marinas, and renewable energy installations.

B) **Purposes for the Zoning Plan -** The zoning plan shall achieve the following purposes:
a) Provide basis for the provision of tenure to qualified coastal zone residents as a means to prevent incidence of squatting and/or unplanned settlements.
b) Locate, delineate and set aside appropriate areas for industries to secure the environmental requirements for the growth and development of coastal communities, such as, but not limited to the identification of areas for settlements, agriculture, institutions, infrastructure, commerce, recreation, tourism, natural reservations and sanctuaries and areas of cultural and historical significance.
c) Delineate areas as sanctuaries, no-fishing zones, fishing gear restriction zones, and critical breeding and feeding areas of ecologically and economically important organisms.
d) Delineate natural areas for the exclusive use of specific user groups such as, but not limited to, areas for recreation, tourism, research and education.
e) Delineate Mangrove areas to be covered under stewardship agreements and other applicable tenurial instruments.
f) Delineate areas where construction is prohibited pursuant to Presidential Decree No. 1967 and DENR Administrative Order No. 05, series of 1997.

Section 5. Multi-Species and Habitat-Based Approach to Fisheries Management - Ecosystem-based Management (EBM) takes into account the full array of interactions within an ecosystem. Pursuant to the City's commitment to EBM, the City Government hereby adopts a multi-species and habitat-based approach towards fisheries management, to wit:

A) Multi-species-based approach: A multi-species approach recognizes and considers interactions between species, such as predator-prey relationships, competition for resources, and symbiotic associations and acknowledges that fishing one species can indirectly impact other species due to their interconnected roles within the ecosystem. The City shall therefore prioritize the health of the entire ecosystem rather than the status of individual species.

B) Habitat-based approach: A habitat-based approach focuses on identifying, protecting, and restoring essential habitats like spawning grounds, nursery areas, and feeding grounds that are critical for different life stages of fish and considers environmental factors like water quality, temperature, and substrate type which can affect fish populations. This approach recognizes the

importance of connectivity between different habitats, considering that many fish species use multiple habitats throughout their life cycle.

C) **Sustainable Harvesting -** The City Government shall adopt a comprehensive harvesting strategy that accounts for both the interdependent relationships between marine species and the vital habitats that support them. This strategy shall include the following, as far as practicable:

   a) **Fishing quotas:** A fishing quota refers to a regulatory limit on the quantity or weight of a particular species of fish that can be caught within a specified area during a certain timeframe. Fishing quotas shall be set after (1) Scientific Assessment of Fish Stocks (2) Stakeholder Consultation and Input, and (3) Regular publication of quotas and disseminating the same.

   b) **Basis for fishing quotas:** Fishing quotas shall be determined by the City Agriculture Office not solely on single-species assessments but shall factor in the ecological roles and interactions of various marine species within the ecosystem. This includes considering predator-prey dynamics, competition for resources, and potential cascading impacts of removing specific species from the ecosystem.

   c) **Prioritization of restoration of essential habitats:** The City Government shall prioritize the protection and restoration of essential fish habitats, recognizing their critical role in supporting healthy fish populations. Special emphasis will be placed on spawning grounds, nursery areas, and feeding zones.

   d) **Dynamic Quotas:** The City Government shall implement a dynamic quota system, adjusting quotas in real-time based on ongoing monitoring of ecosystem health and changes in species interactions. This system will utilize the latest scientific data to ensure that fishing activities align with the current state of marine ecosystems.

   e) **Protection of Migratory Pathways:** Emphasis shall be placed on habitat connectivity and the life cycle needs of fish species. Recognizing that many species utilize multiple habitats throughout their life, measures will be taken to ensure these migratory pathways and habitats remain intact and undisturbed.

   f) **Prohibition against Overfishing:** any person who fishes beyond the set quotas shall be criminally liable for overfishing. Overfishing carries with it the penalty of a fine of One Thousand Pesos (Php 1,000) if the amount fished does not exceed One Hundred and Ten Percent (110%) of the quota for the given timeframe; Two Thousand Pesos (Php 2,000) if the amount fished exceeds One Hundred and Ten Percent (110%) of the quota but does not exceed One Hundred and Thirty Percent (130%) of the quota; Three Thousand Pesos (Php 3,000) if the amount fished exceeds One Hundred and Thirty Percent (130%) of the quota but does not exceed One Hundred and Fifty Percent (150%) of the quota; and Five Thousand Pesos (Php 5,000) if the amount fished exceeds One Hundred and Fifty Percent (150%) of the quota.The fines mentioned above shall be multiplied by the number of kilograms of the fishes caught by the offender in excess of the fishing quota.

Section 6. Mangrove Reforestation and Conservation - Mangrove reforestation and conservation hold paramount importance due to the unique role these coastal forests play in both ecological and human contexts. Mangroves serve as vital buffers against coastal erosion, storm surges, and tsunamis, acting as natural protective barriers for coastal communities. Ecologically, they provide critical habitats for a myriad of marine species, especially acting as breeding grounds for many fish species crucial for global fisheries. Their dense root systems sequester significant amounts of carbon, making them essential players in climate change mitigation. Moreover, they support intricate food webs, bolstering biodiversity, and enhancing ecosystem resilience. Hence, the City Government reaffirms its commitment to preserving and restoring mangrove forests, to wit:

A) Reforestation Projects: The City Government shall actively pursue and implement mangrove reforestation projects within its jurisdiction, targeting areas of degradation, historical mangrove sites, and locations identified as vulnerable to coastal erosion or sea-level rise.

B) **Species and Site Selection:** The City shall choose native mangrove species for reforestation projects. Introducing non-native species can disrupt local ecosystems and fail to provide the expected ecological benefits. With respect to the selection of sites for these projects, the City shall first understand the hydrology and soil conditions of the chosen site. Mangroves have specific saltwater and freshwater needs; an imbalance can affect their survival.

C) Natural Regeneration Encouragement: In order to be more cost-effective, the City shall, whenever possible, prioritize the natural regeneration of mangroves overactive planting. This approach shall also involve the removal of barriers to natural regeneration, such as blockages altering water flow, and the management of potential threats, including invasive species or pollution.

D) Climate Resilience Consideration: The City shall design mangrove restoration projects with an understanding of predicted climate change impacts, such as sea-level rise, increased storm frequency, or changes in salinity.

E) Holistic Ecosystem Restoration: The City recognizes that mangroves are just one component of a larger coastal ecosystem, which might include seagrass beds, coral reefs, and estuaries. Thus, when restoring mangroves, the City shall consider the health and restoration needs of these adjoining ecosystems. Their mutual health can influence the success of mangrove reforestation.

F) Sustainable Economic Utilization: The City shall promote sustainable uses of mangroves that support local economies, such as honey production, sustainable wood harvesting, or eco-tourism, *provided* that these activities are carried out in ways that do not threaten the mangrove's health or impede conservation efforts.

G) Prohibition Against the Cutting of Mangroves: A fine of Five Thousand Pesos. (Php 5,000.00) plus imprisonment for thirty (30) days but not more than ninety (90) days shall be imposed against any person of legal age who cuts a mangrove tree without the written permission of the head of the CESD. Not

included in this prohibition is the cutting of mangrove trees conducted by the CESD or its accredited affiliates for scientific or habitat maintenance purposes.

ARTICLE VIII. ENERGY EFFICIENCY IN BUILDINGS AND GREEN INFRASTRUCTURE

Section 1. Purpose and Intent - The purpose of this Article is to ensure that all infrastructure projects undertaken by the City Government of Bacoor are developed and executed with a focus on smart urban development, energy efficiency, and the integration of green infrastructure. This commitment aligns with the City's broader objectives to mitigate environmental impact, reduce carbon emissions, and contribute to sustainable development goals. The intent is to set forth guidelines, standards, and procedures that will guide City Government in making informed decisions that prioritize energy-efficient design and green infrastructure components in its projects.

Section 2. Definitions and Terms -

A) Green Infrastructure: refers to natural or semi-natural systems that provide benefits to the environment includes both the natural environment and engineered systems.
B) Energy Efficiency: refers to the use of technology and design to minimize the amount of energy required to provide a certain level of comfort or performance or to increase the level of comfort or performance with the same amount of energy.
C) Sustainable Building Materials: Materials that are eco-friendly and have low embodied energy, sourced sustainably, and do not deplete natural resources.
D) Renewable Energy Sources: Sources of energy that are not depleted when used, such as wind or solar power.
E) Energy Audit: A systematic process to review and analyze energy flows for energy conservation in a building, process, or system to reduce the amount of energy input without negatively affecting output.
F) Smart Technology: Systems or devices that operate interactively and autonomously, often used to control and monitor energy usage.
G) Water-Efficient Landscaping: Landscaping designed to reduce water use and run-off through the incorporation of native plant species, permeable pavements, and other sustainable practices.
H) City Government Projects: Infrastructure projects that are funded, executed, or otherwise directly overseen by the City Government of Bacoor.
I) HVAC - is an acronym that stands for Heating, Ventilation, and Air Conditioning. The term HVAC is used to describe a complete comfort system that can be used to heat and cool buildings and infrastructure projects, as well as provide improved indoor air quality.
J) Certified Materials: Materials that have been evaluated and certified by recognized environmental organizations for their sustainability.
K) Embodied Energy: The total energy consumed by all of the processes associated with the production of a building material.
L) Recycled Material: Material that has been reprocessed and repurposed from waste.

M) Renewable Material: Material made from resources that can be regenerated at a rate comparable or faster than the rate at which they are consumed.

Section 3. Scope - All City Government Projects and privately-owned development and/or construction activities within the City of Bacoor regardless of size or budget, must comply with established guidelines for green infrastructure and energy efficiency as set forth in this Article. These guidelines are to be integrated into the planning, design, construction, and maintenance phases of any infrastructure or construction project.

Section 4. Pre-Construction Energy Audit - Before the commencement of any project, a comprehensive energy audit must be conducted by the CESD to establish baseline energy usage and identify opportunities for energy conservation. The audit shall be conducted in phases:

A) Phase 1: Preliminary Assessment
- **a)** Appoint an Energy Audit Team: A multidisciplinary team, including energy engineers, architects, and sustainability experts, should be formed.
- **b)** Review Existing Data: Examine available plans, studies, and energy bills, if applicable.
- **c)** Initial Site Visit: Conduct a walk-through to get a first-hand view of the proposed project site.

B) Phase 2: Data Collection
- **a)** Energy Consumption: Use metering equipment to gather data on energy usage patterns for existing structures, if available.
- **b)** Building Envelope Analysis: Inspect insulation, windows, doors, and other envelope components for their energy efficiency attributes.
- **c)** HVAC Systems: Collect data on existing HVAC systems, if applicable, including efficiency ratings.
- d) If the project site does not have any established structures, Phase 2 of the Energy Audit shall involve the use of software to model the site's topography, solar exposure, wind patterns, thermal conditions, and the efficiency of proposed HVAC systems.

C) Phase 3: Data Analysis
- **a)** Benchmarking: Compare gathered data against industry standards and similar projects.
- **b)** Identification of Energy Efficiency Measures (EEMs): Develop a list of potential EEMs based on data analysis.

D) Phase 4: Economic Analysis
- **a)** Cost-Benefit Analysis: Perform a cost-benefit analysis for each identified EEM.
- **b)** ROI Calculation: Calculate the Return on Investment for implementing each EEM.

E) Phase 5: Audit Report
- **a)** Draft Report: Create a comprehensive energy audit report detailing the findings, recommendations, and economic analyses.

b) Peer Review: Have the draft reviewed by independent experts for validation.

c) Final Report: Submit the final report to the relevant city offices for review and approval.

F) Phase 6: Integration into Project Design: Based on the final energy audit report, integrate selected EEMs into the project design.

G) Phase 7: Review and Approval: Submit the project design with integrated EEMs to the City Environment Service Department (CESD*)* and other relevant bodies for final approval.

Section 5. Use of Sustainable Building Materials - Construction materials shall be sourced responsibly, prioritizing recycled or renewable materials that have been certified by recognized environmental organizations.

Section 6. Sustainable Sourcing - In sourcing materials for infrastructure projects, the City Government shall:

A) Prioritize the use of sustainable building materials that are locally sourced to reduce transportation emissions.

B) Encourage the use of recycled and renewable materials.

C) For the purposes of procurement, include the aforementioned preferences in the technical specifications noted in the procurement project requirements and bidding documents.

Section 7. Water-Efficient Systems - Projects shall incorporate water-efficient landscaping, plumbing, and other fixtures to reduce water consumption and waste.

Section 8. Water-Efficient Plumbing Systems - All plumbing systems installed in the new projects must meet the local water efficiency standards. These may include but are not limited to low-flow toilets, sensor-based faucets, and water-efficient shower heads. All systems should aim to meet or exceed the standards set forth by relevant local or national bodies for water efficiency.

Section 9. Water-Efficient Fixtures - All fixtures that use water—including sinks, toilets, and faucets—should be certified as water-efficient by a recognized certification body or by the CESD. Fixtures should also come equipped with features like automatic shutoff to prevent accidental waste of water.

Section 10. Rainwater Harvesting Systems - Projects are encouraged to include systems for the collection and storage of rainwater. Collected rainwater should be used for non-potable purposes such as landscape irrigation, toilet flushing, and cooling systems wherever possible.

Section 11. Greywater Recycling - Systems for treating and recycling greywater (from sinks, showers, etc.) are strongly encouraged and should be incorporated into project designs wherever feasible.

Section 12. Monitoring and Reporting - Each project must include mechanisms for monitoring water usage and efficiency. Regular reports on water consumption, savings, and the effectiveness of installed systems must be submitted to the Sustainable Bacoor Renewability Research Center for review.

Section 13. Energy-Efficient Technology - All projects must incorporate energy-efficient technologies such as LED lighting, solar panels, and other renewable energy sources where feasible. Heating, ventilation, and air conditioning (HVAC) systems installed in projects must meet or exceed current energy efficiency standards as specified by the Department of Energy.

Projects should include building energy management systems (BEMS) to monitor and control building energy usage, optimizing energy efficiency.
Where possible, inclusion of energy storage solutions, such as batteries, should be considered to store excess energy generated from renewable sources for later use.

Section 14. Smart Technology Integration - The design must include the integration of smart technology to monitor and control energy usage effectively. These include, but are not limited to, the following:

A) **Smart Technology in Lighting and Energy Systems:** Projects must incorporate smart technology to control and monitor lighting and other energy systems. This includes features like adaptive lighting in streetlights, which dim or brighten based on pedestrian and vehicular traffic
B) **Intelligent Water Management Systems:** For water management projects, such as dams and treatment plants, smart sensors must be installed to measure various water quality parameters, flow rates, and operational statuses.
C) Traffic Management in Road Projects: Smart sensors should be employed to measure and manage traffic flow, waiting times at intersections, and other relevant data. Traffic lights, for instance, should be adaptable to current traffic conditions.

Section 15. Data Measurement Metrics - To align the smart technology systems with the City of Bacoor's sustainability objectives, the following data measurement metrics should be taken into account for various infrastructure projects:

A) **Energy Consumption Metrics:** Real-time data on electricity consumption, peak demand periods, and energy sources must be collected to optimize energy use and increase reliance on renewable energy sources.
B) Water Quality and Usage Metrics: Measurements should be taken for water quality parameters like pH, turbidity, and contaminant levels, as well as water usage and waste metrics.
C) Air Quality Metrics: Sensors should monitor air pollutants such as PM2.5, PM10, CO2 levels, and other harmful emissions to improve public health and guide environmental policy.
D) Traffic and Mobility Metrics: Data on traffic volume, speed, congestion points, and pedestrian counts are essential for effective traffic management and future infrastructure planning.

E) **Waste Management Metrics:** Data on waste generation, collection efficiency, and recycling rates must be gathered to improve waste management services and promote circular economy practices.
F) **Public Safety Metrics:** Incident reports, emergency response times, and locations of safety equipment like fire hydrants and public defibrillators should be mapped and monitored.
G) **Social Metrics:** Data on public service access, including education, healthcare, and public transportation, should be collected to assess and improve social infrastructure.
H) **Noise Pollution Metrics:** Noise levels should be monitored in residential, commercial, and industrial areas to assess and mitigate noise pollution.
I) **Natural Resource Metrics:** Data on soil quality, deforestation rates, and other natural resource metrics must be collected to guide sustainable land use policies.

Section 16. Integration and Centralization - All the data sets generated under Section 15 should be integrated into a centralized system for comprehensive analysis, making them easily accessible for various city departments, particularly the Smart Bacoor Renewability Research Center.

Section 17. Cybersecurity Measures - Due consideration should be given to the security of these smart technologies. Measures should be put in place to ensure data integrity and guard against unauthorized access.

Section 18. Unauthorized access - Unauthorized access to smart data is defined as gaining access to, manipulating, altering, or deleting any smart city data sets, databases, or control systems without explicit permission from the City Government or relevant authorized entities.

Any individual, group, or entity found guilty of unauthorized access to smart data will be subjected to a penalty of Five Thousand Pesos (PHP 5,000.00). In addition, the guilty party shall also face imprisonment of One (1) year.

Section 19. Compatibility and Scalability - Smart technology systems must be designed to be compatible with existing infrastructure and be scalable to meet future sustainability objectives.

Section 20. Review and Approval - All plans for City Government Projects that include the components mentioned above shall be reviewed and approved by the City Environment Service Department (CESD*).* in coordination with other relevant agencies.

Section 21. Retrofitting and Upgrading Existing Infrastructure - To ensure the City's full commitment to sustainable development and environmental responsibility, all existing infrastructure projects and facilities shall undergo a feasibility study to evaluate the potential for incorporating the sustainability measures outlined in this Article. If so feasible, the necessary steps shall be taken to upgrade them.

ARTICLE IX. GREEN JOB CREATION

Section 1. Purpose and Intent - The City of Bacoor recognizes the urgent need to address environmental challenges while simultaneously promoting economic growth and creating employment opportunities for its residents. This Article aims to integrate the principles of sustainable development into the local labor market by promoting the creation of green jobs. Through these initiatives, the City seeks to achieve a harmonious balance between economic advancement, environmental protection, and societal well-being.

Section 2. Definitions and Terms

A) **Green Jobs**: These are employment opportunities that directly contribute to preserving or restoring the environment. They can be in traditional sectors such as manufacturing and construction or in emerging green sectors like renewable energy and energy efficiency.
B) **Green Job Initiatives**: Refers to programs, projects, or strategies endorsed or initiated by the City aimed at creating or supporting green jobs.
C) **Sustainable Development**: The practice of meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Section 3. Establishment of Green Jobs Program - The City of Bacoor shall establish a Green Jobs Program under the joint supervision of the Public Employment Service Office (PESO), City Livelihood and Development Department, Local Economic Development and Investments Promotion Office (LEDIPO), and the City Environment Service Department (CESD*). To ensure that this provision shall be successfully implemented, the heads of the CESD, PESO, LEDIPO and CLDD to submit a master plan on how to effectively implement the Green Jobs Program not later than thirty (30) working days after the effectivity of this Code.* This program will oversee the identification, development, and support of green job initiatives, ensuring alignment with the city's environmental and economic goals. The program will also serve as the central hub for information dissemination, training, and capacity-building related to green employment.

Section 4. Eligibility Criteria for Green Job Initiatives - To qualify for support under the Green Jobs Program, initiatives must:

A) Demonstrate a clear contribution to environmental preservation or restoration.
B) Show potential for sustainable economic growth and job creation for Bacoor residents.
C) Comply with all local, national, and international environmental standards and regulations.
D) Prioritize the use of local resources, technologies, and expertise.
E) Promote inclusivity, ensuring opportunities for all, including marginalized sectors.

Section 5: Funding Mechanisms for Green Job Creation - Funding for the Green Jobs Program and its supported initiatives will be primarily sourced from the Bacoor Environment Fund as established in Article XII.

The City may also seek external funding and partnerships, such as grants and collaborations, to further enhance and expand the Green Jobs Program.

Section 6. Private Sector Participation in Green Jobs Programs - Recognizing the significant role the private sector plays in driving economic growth and innovation, the City of Bacoor encourages businesses to initiate or participate in Green Jobs programs. Businesses who have duly-accredited Green Jobs programs shall be known as Green Employers. The City shall provide benefits to Green Employers, as explained in Section 8 of this Article.

Section 7. Types of Green Jobs Programs by the Private Sector - The following is a non-exhaustive list of Green Jobs programs that may be initiated by the private sector:

A) **In-house Green Training and Skill Development:** Businesses can establish training programs tailored to their industries, focusing on integrating sustainable practices into everyday operations. Such programs may range from workshops on energy-efficient machinery operation to seminars on sustainable sourcing.
B) **Green Internships:** Internship programs targeting young professionals or fresh graduates shall be considered Green Jobs programs when the scope of work of the intern focuses on renewable energy, sustainable agriculture, or waste management.
C) **Green Research and Development:** Enterprises, especially those in the technology and manufacturing sectors, are encouraged to allocate resources for the research and development of eco-friendly products, services, or operational methods.
D) **Collaborative Community Projects:** Businesses can collaborate with local communities, schools, or other organizations to establish projects that align with the goals of green job creation. Examples include community-based recycling programs, urban gardening initiatives, or local renewable energy installations.

Section 8. Incentives for Businesses with Green Jobs Programs - To stimulate the creation and sustained operation of Green Jobs programs in the private sector, the City of Bacoor shall offer a range of incentives tailored to assist businesses, which may include:

A) **Recognition and Certification:** Businesses running approved Green Jobs programs may receive a City-issued certification, endorsing them as Green Employers. This certification may be used by the business for promotional purposes.
B) **Promotional Support:** Green Employers will be featured on the City's official website. For this purpose, a directory of Green Employers shall be created.

C) **Workshops and Networking:** The City will periodically organize workshops, seminars, and networking events dedicated to green initiatives. Participating businesses will have the opportunity to share their experiences, learn from others, and establish potential collaborations.
D) **Reduced Permitting Fees:** For certain city permits and licenses, businesses with active Green Jobs programs may benefit from reduced fees.
E) **Technical Assistance:** Through CESD, PESO, LEDIPO, CLDD and related national agencies, the City will offer technical guidance to businesses looking to establish or refine their Green Jobs programs, ensuring their initiatives align with best practices and deliver genuine environmental and societal benefits.

Section 9. Accreditation of Green Employers - The following process shall be applicable for businesses seeking to be accredited as Green Employers:

A) **Application Submission:** Interested businesses shall submit a comprehensive application to the City Environment Service Department (CESD). The application should detail the nature of their Green Jobs program, its objectives, and the expected environmental and societal benefits. The CESD shall furnish the PESO, LEDIPO and CLDD with a copy of the application.
B) **Documentation**: The application should be accompanied by relevant documentation, including:
    a) A clear outline of the green job roles within the organization.
    b) Details of any training programs intended for green job roles.
    c) Evidence of past or ongoing sustainable initiatives or practices.
    d) Any third-party verifications or certifications related to environmental sustainability.
C) **Review Period:** Upon submission, CESD shall lead — in coordination with the PESO, LEDIPO and CLDD- the review the application and attached documents. This review process shall not exceed 20 working days. Businesses may be contacted during this period for additional information or clarification.
D) **Site Verification:** CESD or PESO may conduct on-site inspections or interviews to verify the authenticity of the claims made in the application and assess the genuine impact of the business's Green Jobs program.
E) **Evaluation Committee:** A special committee consisting of representatives from the CESD, PESO, LEDIPO and CLDD, will evaluate applications based on established criteria.
F) **Notification**: Businesses will be notified in writing about the outcome of their application. Successful applicants will receive their Green Employer certification and details of the benefits and responsibilities associated with the accreditation.
G) **Renewal:** Accreditation as a Green Employer is valid for three years. To maintain their status, businesses must apply for renewal within six months from the expiration of their most recent accreditation.
H) **Payment of Fee:** Each applicant shall pay a processing fee of Two Thousand Pesos.

Section 10. Mandatory Green Employer Certification - Businesses operating within Bacoor City in the renewable energy, sustainable agriculture, or waste management sectors must secure accreditation as a Green Employer. These businesses must acquire their certification within one year from the start of its business operations.

Section 11. Responsibilities of Green Employers - Upon receiving accreditation as a Green Employer, businesses are entrusted with upholding the green employment standards and values of Bacoor City. To this end, Green Employers shall abide by the following responsibilities:

A) **Continuous Commitment:** Maintain an active and robust Green Jobs program for the duration of its accreditation. *Provided,* that this paragraph shall not apply if the business suffers significant financial losses leading to the termination of its Green Jobs Program. *Provided, further,* that the Green Employer is obligated to restore said program as soon as practicable.
B) **Employee Engagement:** Ensure that employees are well-informed about the company's Green Jobs initiatives and are provided with opportunities to participate, upskill, or transition to green job roles.
C) **Adherence to Regulations:** Comply with all relevant local, national, and international environmental and labor standards. Any changes to these regulations should be promptly integrated into the company's practices.
D) **Regular Review and Improvement:** Periodically review and update their Green Jobs program to incorporate new technologies, methodologies, and best practices in the field of sustainability. This commitment to continuous improvement ensures that the program remains effective and relevant.
E) **Renewal of Accreditation:** Ensure the timely renewal of their Green Employer status by adhering to the accreditation process outlined in Section 9.

ARTICLE X. BACOOR ENVIRONMENT FUND

Chapter 1. The Fund

Section 1. Establishment of the Fund - The City of Bacoor hereby establishes the "Bacoor Environment Fund" (hereinafter referred to as the "Fund"). This Fund is a special trust account that is solely dedicated to supporting and promoting sustainable development, environmental conservation, and green initiatives of the CESD within the City. Its primary purpose is to provide financial resources for projects, programs, and activities that further the environmental goals and objectives of Bacoor City, ensuring a healthy, sustainable, and resilient future for its residents. The said fund may also be used to augment the salaries and benefits of CESD personnel as well as procure, repair or construct various equipment that are being used or are needed to be used by the CESD and its personnel in the implementation of its various mandates.

Section 2. Source of Funds - The Fund shall have the following sources:

A) City Budget Allocations: A specified percentage of the City's annual budget shall be earmarked for the Bacoor Environment Fund. The exact percentage shall be determined by the City Council in consultation with the City Environment Service Department (CESD).

B) Green Bonds: As described in Chapter 2 of this Article, proceeds from the issuance of city green bonds shall be a dedicated source of funding for environmental initiatives under this Fund.
C) Public-Private Partnerships: Funding may also come from collaborations with private entities interested in environmental conservation and sustainability. These contributions shall be subject to a vetting process to ensure they align with the goals of the Bacoor Environment Fund.
D) Grants and Donations: Monies received from national or international grants, as well as donations from individuals, non-governmental organizations, and international bodies, may be channeled into the Fund.
E) Environmental Fees and Levies: Specific environmental fees, such as a carbon offset fee, plastic bag fee, or pollution penalties, may be levied and directed into the Fund.
F) Revenue from City-Owned Sustainable Initiatives: Profits generated from city-owned environmental or sustainable projects, such as recycling plants or renewable energy installations, will be partially allocated to the Fund. For the purposes of this Section, "profits" shall mean revenues minus costs.
G) Investment Income: Any income generated through the investment of idle Fund monies shall be re-invested back into the Fund.
H) Fines and Penalties: Fines collected from violations of environmental laws and regulations within the City of Bacoor shall be allocated to the Bacoor Environment Fund.
I) Land Use Fees for Environmentally Critical Projects: Any fees collected from Environmentally Critical Projects in Bacoor (ECPBs) as part of the City Environmental Compliance Certificate (CECC) shall be allocated to the Fund.
J) Fund-Raising Activities: The City may engage in specific fund-raising activities aimed at supplementing the Bacoor Environment Fund. These activities shall be conducted transparently and be subject to regular audit.

Section 3. Management and Oversight - The Bacoor Environment Fund shall be managed and overseen by a dedicated Fund Management Committee. The Committee shall consist of:

A) The City Mayor, who shall serve as the Chairperson.
B) The head of the City Environment Service Department (CESD), who shall serve as the Vice Chairperson.
C) The City Internal Auditor, the Chairperson of the Committee on Finance and Budget Appropriations of the Sangguniang Panlungsod or, in his absence, the Sangguniang Panlungsod Secretary, and the City Accountant as members.
D) A representative from the City Finance Department.

The Head of the CESD shall appoint one of his/her subordinates to head the Secretariat of the Committee which will have the duty of producing and safekeeping all reports and records related to the use of the Fund.

Section 4. Responsibilities of the Fund Management Committee - The Fund Management Committee shall have the following responsibilities:

A) Fund Allocation: The Committee shall be responsible for determining how the Fund's resources are allocated, consistent with the priorities and guidelines set forth in this Article and any subsequent revisions or guidelines.
B) Transparency: The Committee shall publish an annual report outlining how funds have been allocated, including details of all projects funded, their status, and their impact. This report will be made publicly available through the City's official website and other appropriate media.
C) Financial Auditing: The Fund shall be subject to an annual financial audit by an accredited auditing firm. Results of the audit shall be published as part of the annual report.
D) Compliance Monitoring: The Committee shall ensure that funds are used in compliance with all applicable laws, regulations, and guidelines. Projects found to be non-compliant shall be subject to immediate review, and funds may be reallocated as the Committee deems appropriate.
E) Strategic Planning: The Committee shall engage in periodic strategic planning to assess the Fund's impact and re-evaluate its priorities. This shall include a comprehensive review every five years, in consultation with experts, stakeholders, and the general public.
F) Review of Applications: For projects requiring funding, the Committee will be responsible for the initial review of applications and will make funding recommendations based on the project's alignment with the Fund's objectives.
G) Emergency Provisions: In the event of environmental emergencies that require immediate action, the Committee is empowered to allocate funds in an expedited manner, subject to subsequent review.

Chapter 2. Green Bonds

Section 5. Green Bonds - Issuance of city green bonds, the proceeds of which shall be exclusively used for initiatives under the Bacoor Environment Fund. Green Bonds shall be interest-bearing instruments to encourage investment. For this purpose, the floating of green bonds is hereby authorized pursuant to Section 11 (2)(iv) of the Charter of the City of Bacoor (Republic Act No. 10160). The City Mayor is hereby authorized to negotiate with any government financial institution to ensure the successful implementation of this provision.

Section 6. Green Bonds Investment Appeal - Investing in Green Bonds will be promoted as an environmentally conscious and socially responsible investment option. Marketing materials and investment prospectuses shall explicitly state the environmental and social benefits of the bonds.

Section 7. Regulatory Compliance of Green Bonds - The issuance of these green bonds shall be subject to the approval and oversight of relevant regulatory agencies, and shall comply with any existing laws and regulations concerning bond issuance.

Section 8. Transparency and Reporting - For the benefit of the bondholders, an annual report detailing the use of the bond proceeds shall be published. This ensures

transparency and allows bondholders to understand how their investment is contributing to food security and environmental initiatives.

Section 9. Rate of Return - The bonds will offer a competitive rate of return, to be determined in consultation with financial experts, to attract potential investors.

Section 10. Maturity and Payment Terms - Terms for the maturity of the bonds and payment to bondholders shall be clearly outlined in the bond prospectus.

ARTICLE XI. SMART BACOOR RENEWABILITY RESEARCH CENTER

Section 1. Establishment and Purpose of the Smart Bacoor Renewability Research Center - The City of Bacoor hereby establishes the Smart Bacoor Renewability Research Center (SBRRC). The purpose of the SBRRC is to serve as a hub for research and development (R&D) focused on green technologies, renewable energy, and sustainable practices that contribute to environmental protection and economic development within the city. The SBRRC aims to foster innovation, disseminate knowledge, and encourage collaboration between public and private sectors to achieve a sustainable future for the City of Bacoor.

Section 2. Definitions and Terminology - As used in this Article, the following terms shall be defined and understood as follows:

A) Smart Bacoor Renewability Research Center (SBRRC): A research and development center established by the City of Bacoor to focus on green technologies, renewable energy, and sustainable practices.
B) Green Technologies: Techniques, equipment, and approaches that are environmentally friendly and are focused on sustainability, energy efficiency, waste reduction, and minimizing environmental impact.
C) Renewable Energy: Energy from a source that is not depleted when used, such as wind, solar power, or hydroelectric power.
D) Sustainable Practices: Actions and strategies aimed at achieving long-term environmental, economic, and social benefits, while minimizing negative impacts on natural resources and ecosystems.
E) Public Sector: Refers to governmental bodies and institutions responsible for policy-making, public services, and governance.
F) Private Sector: Refers to individuals, companies, and organizations that are not part of the government.
G) Collaboration: The act of working jointly with different sectors, organizations, or individuals on a shared objective, project, or mission.
H) Research and Development (R&D): Investigative activities undertaken to discover new knowledge and derive new forms of practical applications from such knowledge.
I) Environmental Protection: Measures taken to safeguard the environment from degradation, including conserving natural resources, reducing waste, and promoting sustainable development.

J) Economic Development: Efforts to improve the quality of life and well-being of the city's inhabitants through job creation, revenue generation, and community development.

Section 3. Collaboration with Academic and Research Institutions - In the pursuit of advancing research and fostering innovation in green technologies and environmental solutions, the SBRRC may recommend the City Mayor to enter into research agreements with academic and research institutions. These collaborations may include, but are not limited to, the following:

A) Joint Research Initiatives: Collaborative projects aimed at tackling specific environmental challenges facing the City of Bacoor and beyond, utilizing the expertise and resources of both the SBRRC and the partnering institution.
B) Exchange of Expertise and Resources: The sharing of academic and professional experts, laboratory facilities, equipment, and other resources necessary for the successful completion of research projects.
C) Student Internship Programs: Facilitating internships and fellowship programs for students from collaborating institutions to gain practical experience in environmental research and technology development.
D) Publication and Dissemination: Co-authoring research papers, reports, and other publications to disseminate the findings and encourage broader discussions and further studies in the field of environmental science.
E) Funding and Grants: Exploring opportunities for joint funding from government agencies, international organizations, and private sectors to support collaborative research initiatives.
F) Technical Assistance and Capacity Building: Offering training workshops, seminars, and other educational programs to build the capabilities of researchers, students, and staff from both the SBRRC and the collaborating institution.

Section 4. Partnership with Industry Stakeholders - In order to translate research findings into actionable solutions and scalable technologies, the SBRRC is encouraged to form partnerships with industry stakeholders, including but not limited to corporations, small and medium-sized enterprises, non-governmental organizations, and other private entities. These partnerships may be executed for the following purposes in this non-exclusive list:

A) Technology Transfer: Facilitating the exchange of technology and innovation from the research stage to real-world application, allowing for more rapid and effective implementation of environmental solutions.
B) Pilot Testing and Implementation: Collaborating with industry partners to conduct field tests or pilot projects that can demonstrate the feasibility and effectiveness of technologies developed or recommended by the SBRRC.
C) Resource Mobilization: Pooling financial, technical, and human resources to support the execution and scaling of projects that have undergone successful initial testing.
D) Public Awareness and Advocacy: Working together to create public awareness campaigns that educate the community about the importance of environmental sustainability and the solutions available for addressing related challenges.

E) Data Sharing and Analysis: Leveraging industry data and insights to refine research methodologies and outcomes, aiming for practical, effective solutions to environmental issues.
F) Regulatory Collaboration: Consulting with industry stakeholders to provide recommendations on environmental regulations and guidelines that balance economic growth with ecological preservation.
G) Revenue Generation: Exploring mechanisms for commercializing technologies or solutions developed through the SBRRC, with revenue generated to be reinvested in further research and development activities.

ARTICLE XII. SUSTAINABLE BACOOR ROUNDTABLE SUMMIT

Section 1. Purpose and Intent - The Sustainable Bacoor Roundtable Summit, hereinafter referred to as the "SBR Summit," aims to create a platform for dialogue, sharing of best practices, and collaborative planning among local, national, and international experts in the fields of environmental sustainability, green energy, and circular economy. The Summit will be conducted annually and will focus on the latest research, innovations, and actionable solutions to address Bacoor's unique environmental challenges and opportunities.

Section 2. Summit Scope and Themes - The SBR Summit will cover a wide range of topics related to environmental sustainability, including but not limited to green businesses, green technologies, direct foreign investments into the City involving businesses employing green technologies, waste management, water conservation, renewable energy, urban farming, and green job creation. The specific themes for each year's summit shall be recommended to the City Mayor by a committee composed of members from the City Environment Service Department (CESD), Bacoor Tourism Development Office, Local Economic Development and Investments Promotions Office (LEDIPO), and other relevant stakeholders.

Section 3. Participation and Invitations - The Summit shall extend invitations to leading experts in environmental sciences, policy-making, technology, and academia. Private enterprises, civil society organizations, and the general public are also encouraged to attend. Special focus will be given to ensuring the participation of local stakeholders, including but not limited to local businesses, educational institutions, and community organizations.

Section 4. Summit Organizing Committee - An organizing committee to be appointed by the City Mayor shall be formed at least six months prior to the scheduled summit. The committee will be responsible for planning, coordinating, and executing the summit's activities, including the selection of speakers, establishment of agenda, and logistics. This committee will be under the purview of the CESD and will include representatives from other relevant city offices.

Section 5. Funding and Sponsorship - The SBR Summit shall be primarily funded through the Bacoor Environment Fund, supplemented by sponsorships, grants, and registration fees, as appropriate. The committee is authorized to seek additional

external funding and sponsorships in alignment with the goals and themes of the Summit.

Section 6. Documentation and Dissemination - The proceedings, resolutions, and key insights from each SBR Summit shall be documented and published. This will include the preparation of a Summit Report that will be disseminated to all relevant city agencies and made publicly accessible for the benefit of the community.

Section 7. Review and Follow-up Actions - Within 60 days after the conclusion of the SBR Summit, the organizing committee will meet to review the outcomes and identify actionable items and follow-up projects based on the discussions and recommendations arising from the Summit.

Section 8. Community Engagement - In the lead-up to and following each SBR Summit, a series of community engagements will be conducted to disseminate information, gather input, and ensure that the outcomes of the Summit are integrated into the city's environmental strategies.

Section 9. International Collaboration - The SBR Summit aims to establish Bacoor as a hub for sustainable practices and welcomes the participation of international experts, institutions, and organizations. Mechanisms for international collaboration and exchange of expertise shall be explored as part of the Summit's ongoing activities.

Section 10. Annual Review - The efficacy, reach, and impact of the SBR Summit will be reviewed annually, with adjustments made as necessary to better align the Summit with its stated goals and the evolving environmental needs of the City of Bacoor.

ARTICLE XIII. FINAL PROVISIONS

Section 1. Exemption of Minors or Mentally Incapacitated Persons from Criminal Liability. – Pursuant to Section 10 of City Ordinance No. 228-2022, minors and mentally incapacitated persons as determined by the OCHS shall not be penalized for any violation of any provision of this Code. The procedures for the handling of child offenders provided in Section 11 of City Ordinance No. 228-2022 shall likewise be observed.

Section 2. Repealing Clause – All Ordinances, Resolutions, Circulars, Memorandums or Rules and regulations inconsistent with the provision of this Code are hereby repealed and modified accordingly.

Section 3. Effectivity Clause – This Code shall take effect after ten (10) days from the date a copy thereof is posted in a bulletin board at the entrance of the City Hall of Bacoor and in at least two (2) other conspicuous places in the City of Bacoor not later than five (5) days after approval thereof.

Section 4. Review and Amendment Clause – Every seven (7) years from the enactment of this Code, a special committee shall be convened to review its provisions and effectiveness. Recommendations for amendments, if any, shall be presented to the City Council for appropriate action.

Section 5. Monitoring and Evaluation Mechanism – A monitoring and evaluation system shall be established to assess the effectiveness and impact of the programs and policies under this Code. Regular reports, at least annually, shall be submitted to the City Council detailing the progress and challenges encountered.

APPROVED this __ day of _____ 202_ at the City of Bacoor, Cavite.

I hereby certify that the foregoing Ordinance was duly approved in accordance with law by the 5th Sangguniang Panlungsod of the City of Bacoor, Cavite.

Certified by:

HON. ROWENA BAUTISTA-MENDIOLA
City Vice Mayor/Presiding Officer

Attested by:

ATTY. KHALID A. ATEGA JR.
Sangguniang Panlungsod Secretary

Approved by:

HON. STRIKE B. REVILLA
City Mayor
Date of Approval: _____