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CONSERVATION AND BIODIVERSITY PROGRAM

STEWARDSHIP IN THE WEST PHILIPPINE SEA

Role of the Philippine Coast Guard in the West Philippine Sea

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INTRODUCTION

History and Legal Mandates of the Philippine Coast Guard

The Philippine Coast Guard (PCG) was established on August 6, 1967, through Republic Act No. 5173, or the Philippine Coast Guard Law. Under RA 5173, the PCG was made a major unit of the Philippine Navy with the function of preserving Philippine maritime sovereignty in the high seas and waters within the Philippine jurisdiction, preventing illegal entry and smuggling activities, enforcing maritime navigation regulations, overseeing maritime communications, among other functions. In 1988, under Executive Order No. 477, the PCG was transferred to the Department of Transportation and Communication. In 1997, the PCG underwent a milestone change when the Republic Act No. 9993 was enacted, which streamlined the Command to three major functions: Maritime Law Enforcement, Maritime Safety and Security, and Maritime Environmental Protection. Furthermore, RA 9993 included the establishment of the Philippine Coast Guard Auxiliary, which are trained, organized, and supervised by the Command to assist in carrying out the mandated functions of the PCG in the conduct of environmental protection, civic action and humanitarian services, youth development, and community extensions in the advocacy and education on maritime safety.

The Maritime Resources in the West Philippine Sea

The West Philippine (WPS) Sea is defined in Republic Act No. 12064 as the western side of the Philippine Archipelago, including the Luzon Sea, Bajo de Masinloc, and the Kalayaan Island Group (KIG). This area has been the site of economic activity due to its abundant marine food source and its petroleum deposits, as demonstrated by the fish production and the natural gas reserves of the waters off Palawan, respectively. The latter has also been a source of energy since 2001, when the Malampaya

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gas field fueled the 2700 MW gas-fired power plants in Batangas (DOE n.d.). The project has provided 20 percent of the country's energy requirements and has decreased its reliance on imported crude oil (Malampaya 2022). To date, the Department of Energy (DOE) has renewed the Malampaya Service Contract of the Malampaya Consortium to extract vital fuel until 2039. However, the gas field supply is dwindling and is estimated to be fully depleted by 2027 (Jose 2023).

The West Philippine Sea has also been a great source of livelihood for coastal fishing communities in the Philippines. Over 530 reef fish species and 693 seaweed species, including 148 commercially viable species, and a wide array of corals and sea clams can be found in the region (Arceo 2024). The coral reefs provide shelter and act as spawning grounds for marine organisms. As a fishing ground for Philippine coastal communities in the western archipelago, the WPS produced about 318,040 MT of fish annually from 2016 to 2020, which accounts for 10 percent of the country's total food fish production (Geronimo 2024). In the Spratley Island Group alone, unique features of the sea currents encourage the upwelling of nutrients from deeper depths, which in turn provides a supportive ecological environment for marine productivity in the WPS and into the Sulu and Celebes Seas due to their interconnections (Villanoy and Yniguez 2024). This demonstrates the impact of the WPS on the productivity in the internal waters of the Philippines.

BACKGROUND AND STATEMENT OF THE ARGUMENT

The Environmental Toll in the West Philippine Sea

One of the most alarming issues was the large-scale harvesting of giant clams, an activity that has wreaked havoc on coral reefs in the area. Foreign fishermen have been observed using destructive methods, such as crushing coral reefs with boat propellers, to extract these clams. A study conducted by the Asia Maritime Transparency Initiative estimates around 16,000 acres of giant clams were harvested by Chinese fishermen (Rocamora 2024). Giant clams are vital to the marine ecosystem as they provide shelter and food for various marine species while contributing to the overall fish density (PCSD 2019).

Coral reefs, often referred to as the nurseries of the ocean, are critical habitats for fish and other marine life. Their destruction means not only the loss of biodiversity but also declining fish stocks. Coral serve as carbon sinks, helping mitigate the effects of climate change. Reef organisms also contain biomolecules with pharmaceutical potential in cancer, neurologic, and anti-oxidant properties hence, can be effective sources for renewable drug development (UNEP 2004). The loss of these ecosystems amplifies environmental challenges and puts the future of the region at risk (Reuters 2024). Efforts to address the situation have been challenging, with limited monitoring and surveillance capacities in the Philippines. The country has called for accountability and international scrutiny of these destructive practices, even considering legal action under international environmental laws (Strangio 2024).

The destruction of marine resources in the West Philippine Sea is not just an environmental crisis as it also affects human lives and economy. The reefs being destroyed are lifelines for countless coastal communities. Protecting this fragile ecosystem is not just about preserving biodiversity; it is also about safeguarding the future of those who rely on the fishing industry. Without urgent and collective action, the damage may become irreversible, leaving a legacy of loss for generations to come.

LITERATURE REVIEW

Republic Act No. 12064: The Philippine Maritime Zones Act

The Philippine Maritime Zones Act was signed into law on November 7, 2024, establishing the country's maritime zones in alignment with international law, particularly the United Nations Convention on the Law of the Sea (UNCLOS) (Gita-Carlos 2024). This legislation underscores the Philippines' commitment to safeguard its maritime rights and ensure the sustainable management of its marine resources. The law defines the Philippines' maritime zones, including internal waters, archipelagic waters, territorial sea, contiguous zone, exclusive economic zone (EEZ), and continental shelf. These zones serve as the geographical framework for asserting the country's sovereign rights and jurisdiction over its marine areas, as outlined by UNCLOS (RA No. 12064). Within these zones, the Philippines exercises sovereignty, enabling control over natural resources—

both living and non-living—and jurisdiction over environmental protection, scientific research, and economic activities such as the mining of petroleum and mineral deposits (RA No. 12064).

By aligning with UNCLOS, RA 12064 reaffirms the Philippines' adherence to international maritime law. This ensures that the country's maritime claims are legally defensible and consistent with globally accepted standards. Moreover, the law provides a basis for addressing disputes and fostering peaceful cooperation in contested areas, such as the West Philippine Sea. The legislation also establishes a solid legal framework for social, economic, and commercial activities within Philippine waters. It ensures that these endeavors comply with both national laws and international commitments, fostering sustainable economic development while preserving marine ecosystems (PNA 2024).

Republic Act No. 12065: Philippine Archipelagic Sea Lanes Act

The Philippine Archipelagic Sea Lanes Act, also signed into law on November 2024, establishes a legal framework for managing archipelagic sea lanes (ASLs) and air routes within Philippine waters, ensuring sovereign control while accommodating international navigation rights. Grounded in the UNCLOS, the legislation balances the facilitation of foreign transit with the protection of national security, marine biodiversity, and the critical concerns of the marine environment, particularly in the ecologically and geopolitically significant West Philippine Sea ecologically and geopolitically significant West Philippine Sea.

RA 12065 designates specific sea lanes for the passage of foreign vessels and aircraft, mandating that their transit be continuous, expeditious, and free from any activities that could compromise the Philippines' security or natural resources. It also monitors for and deters unauthorized fishing, the exploitation of marine resources, marine pollution, and other harmful practices. The law also strengthens the ENIPAS (Philippine Congress, ENIPAS 2018) which regulates bioprospecting activities, or the exploration of marine genetic resources, and combats the transfer of invasive species via ship hulls to safeguard the country's fragile marine ecosystems. RA 12065 imposes strict protocols on bioprospecting, prohibiting foreign vessels from conducting oceanographic surveys and research activities to include the collection of marine specimens without prior authorization from the Philippine Government. These measures prevent the unauthorized exploitation of marine genetic resources, ensuring their sustainable and equitable use. By enforcing international standards, such as the International Maritime Organization's Biofouling Guidelines, the legislation mitigates risks to biodiversity and local ecosystems as mandated by the International Maritime Organization Biofouling Guidelines published in 2018.

The inclusion of terminologies such as "West Philippine Sea," "Benham Rise," and "Philippine Rise" in officially integrates these areas into the country's legislative and cartographic records. This move strengthens the Philippines' claims amidst overlapping territorial disputes, particularly in the Spratly Islands (Philippine Congress 2018). The law also echoes the landmark decision of the Permanent Court of Arbitration on July 12, 2016, which invalidated China's nine-dash line claim and affirmed the Philippines' maritime rights under UNCLOS (PCA 2016).

While both the Archipelagic Sea Lanes and the Maritime Zone Acts have garnered both support and criticism from neighboring states, they represent a clear commitment to peaceful engagement and responsible international cooperation. By addressing critical issues such as bioprospecting, biofouling, and ecological preservation, the Philippines demonstrates a forward-thinking approach to maritime governance.

DISCUSSION

Marine Conservation and Biodiversity Protection

The Philippine Coast Guard Maritime Environmental Protection Command (MEPCOM) serves as a critical arm of the PCG dedicated to protecting the nation's marine and coastal ecosystems. Its primary mission is to ensure the sustainable use of maritime resources while addressing pressing environmental challenges within Philippine waters. To achieve this, MEPCOM performs a broad range of functions that contribute to preserving marine biodiversity, enforcing environmental laws, and promoting sustainable practices.

One of MEPCOM's key responsibilities is preventing and controlling marine pollution. The command enforces stringent regulations to ensure compliance

with international maritime standards, such as the International Convention for the Prevention of Pollution from Ships (MARPOL). This includes collaborating with port authorities and industries to implement waste management systems and prevent harmful substances from being discharged into the sea. In cases of oil spills or hazardous substance discharges, MEPCOM leads in the investigation of these incidents, such as identifying and verifying the possible source of oil material and surveying the areas and communities affected by the oil spill. Equipped with air assets, specialized vessels, and containment tools, the command mobilizes resources to respond, monitor, and mitigate the environmental impact of such incidents and conducts regular training to ensure preparedness.

Research and development also play a pivotal role in MEPCOM's efforts. The command collaborates with academic institutions and research organizations to study marine ecosystems, pollution patterns, and effective response strategies, ensuring that policies and operational plans are informed by the latest scientific insights. Additionally, MEPCOM fosters international cooperation by participating in joint exercises, information-sharing initiatives, and capacity-building programs with neighboring countries and global organizations, addressing environmental issues that transcend national borders.

The MEPCOM's role in environmental protection in the West Philippine Sea goes beyond the monitoring of the status of marine biodiversity, its roles in investigative function may also augment the roles of the Maritime Security Law Enforcement Command (MARSLEC) due to the passage of the Philippine Maritime Zones Act wherein sovereign and EEZ territories identified must be secured and the archipelagic sea lanes managed and controlled.

CONCLUSION AND POLICY RECOMMENDATIONS

Fostering the Blue Economy

The collaboration with relevant agencies in the combating of illegal, undocumented, and unregulated (IUU) fishing (PCG 2022) ensures the sustainable management of fish stocks and monitor environmental threats such as oil spills and coral reef destruction. These efforts support food security, livelihoods, and economic growth while protecting marine ecosystems. An example of fostering the blue economy is the management of reef tourism. According to the Department of Tourism (DOT), dive tourism brought approximately Php 73 billion to the country's economy, or almost twice the Php 37 billion revenue generated from the industry in 2022 (DOT 2024). Initiatives such as these boost the local economy and foster awareness of the environment. Management of ecotourism programs involves careful monitoring and mitigation to prevent the degradation of the environment as well as providing for the safety and security of the communities involved. A multi-sectoral approach with the local government, the Department of Tourism, Department of Environment and Natural Resources, the Philippine Coast Guard, and other relevant stakeholders is necessary to create a sustainable ecotourism industry. Sustainable development and ocean stewardship are vital as the West Philippine Sea is not only a source of income for the local community but also provides a sanctuary for marine life and thus provides food sources for other countries in the Asian region as well.

Promoting Research

Research activities in the WPS must prevent bioprospecting or the inadvertent collection of genetic material and the derived knowledge from the biological materials for commercial use. In performing these tasks, monitoring and floating assets, human resources, communication, and information infrastructures of the Philippine Coast Guard must be upgraded to enforce the laws protecting the country's sovereign territories. Coordination with other governments (i.e. DICT, DENR, LGUs, SUCs) and non-government agencies, as well as private stakeholders in the environmental and maritime industry sectors, can augment the monitoring of the status of the WPS territories. By combining enforcement, education, and collaboration, the command ensures the long-term health and sustainability of the nation's marine ecosystems, contributing to the well-being of both current and future generations. By virtue of relevant laws discussed, the PCG can support research activities and exploration of natural gas and oil resources by providing assets and expertise thus also contributing to the energy sector.

Stakeholder Engagement

To date, Congress has filed House Bill No. 10841, or the Revised Philippine Coast Guard Law, to enhance the PCG's capabilities in performing their mandate. Under the

House Bill, three major service commands are identified: the Maritime Environmental Protection Command, the Maritime Security Law Enforcement, and the Maritime Safety Services Command. Moreover, the House Bill retains and makes a special provision for the organization and operation of a uniformed volunteer organization under the PCG's management, the Philippine Coast Guard Auxiliary. With the institution of these units, the PCG will be adequately equipped with human resources, equipment, finances, and infrastructures to achieve its mandate of protecting the country's maritime domain.

Furthermore, by tapping into the diverse professional resources of the PCGA, conducting biodiversity studies, and exploring renewable energy opportunities, the PCG contributes to evidence-based policy development. Public awareness campaigns through partnerships with education and mass communication institutes of higher learning can promote marine conservation and responsible tourism. Community grassroots initiatives with socio-civic organizations help local fisherfolk adopt sustainable practices and engage in decision-making processes. These collaborative efforts underscore the importance of integrating environmental stewardship into maritime governance.

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THE PROGRAM

Philippine laws concerning biodiversity conservation are one of the most progressive in the world. However, there is a need to assess the policy impact of biodiversity and whether biodiversity policy meets principles of ecological integrity and sustainability, and whether outcomes are realized. This will inform the country to take on its international obligations in biodiversity conservation to meet UN Sustainable Development Goals 13,14 and 15.

As biodiversity is essential in providing the sustainable base for agriculture and fisheries and its strategic dimensions, three foci of policy research in this program include assessing 1) the nexus between fisheries, aquaculture, and environmental sustainability, 2) the effectivity of protected areas governance and ecological outcomes in the context of resiliency in global anthropogenic climate change and, 3) Policy and strategic dimensions in marine science research (MSR). These areas have all relevance to food, environment, and national security.

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