

Deepening Threats to the Coastal and Marine Ecosystems of the Philippines

A Briefing Paper on Offshore Mining, Seabed Quarrying and Reclamation Projects



Alyansa Tigil Mina

2023

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By



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Foreword

In early 2000, Alyansa Tigil Mina (ATM) through partner communities and support organizations began to monitor increased offshore mining and exploration activities in the provinces of Cagayan and Pangasinan.

Meanwhile seabed quarrying activities to source dredgefill materials for the New Manila International Airport in Bulacan and Manila Bay reclamation projects drew the ire of fisherfolks and the Catholic church in Cavite that they launched a signature campaign against these in 2021.

Permits for these coastal undertakings were approved and more applications were accepted despite the fact that the Department of Environment and Natural Resources (DENR) and other relevant government agencies have yet to establish internal rules and inter-agency coordination guidelines to monitor and supervise these environmentally-sensitive projects.

ATM also suspects that offshore mining and seabed quarrying might be the initial stages for the Philippines to venture in deep-sea mining.

These troubling developments accompanied by requests from affected communities and partner networks such as the NASSA-Caritas through the EcoConvergence platform, Laudato Si Movement (LSM) and I-Defend Social Justice Working Group prompted ATM's General Assembly last December 2022 to study the status of offshore mining and seabed quarrying in the Philippines.



Executive Summary

Offshore mining and seabed quarrying are emerging extractive activities that threaten resources in the 266,000 km² coastal areas of the country. Offshore mining mainly responds to the demand for magnetite sand or iron ore, meanwhile seabed quarrying is done to supply the needed dredge fill materials for land reclamation projects.

Presently, there are 11 large-scale offshore mining projects in the country – 1 project under development and construction phase located in Gonzaga, Cagayan and managed by JDVC Resources Corporation, and 10 projects under exploration phase in Pangasinan, Leyte and Cagayan. Then there are 7 applications in Capiz, Aklan, Iloilo, Negros Oriental, Negros Occidental, and Leyte.

Based on a list obtained from the Philippine Reclamation Authority (PRA) in May 2022, there are 175 reclamation projects lined up all over the country at different stages of application. According to environmental groups belonging to People’s NICHE, there are at least 46 reclamation projects in Manila Bay alone which would affect 32,000-hectares of fishing waters.¹

In August 2023, President Bongbong Marcos announced the suspension of all reclamation projects, except one which was supposedly reviewed already, amid complaints of flooding raised by Bulacan mayors and US embassy’s allegation of involvement of a blacklisted Chinese construction company.² Two months before, Sec. Maria Antonia “Toni” Yulo-Loyzaga of

¹ Article by Inquirer dated August 29, 2022: Group presses total ban on Manila Bay reclamation projects <https://newsinfo.inquirer.net/1654604/group-presses-total-ban-on-manila-bay-reclamation-projects> (accessed 30 August 2022)

² Article by SciDevNet dated August 11, 2023: Philippine reclamation projects halted amid flood fears <https://www.scidev.net/global/news/philippine-reclamation-projects-halted-amid-flood-fears/> (accessed 11 October 2023)

the Department of Environment and Natural Resources (DENR) already ordered a cumulative assessment of these projects.

Much earlier in 2021, then President Rodrigo Duterte stopped the processing of applications for reclamation projects due to reports of corruption.³ Also in May 2022, DENR issued AO 2022-08 declaring a moratorium on new applications for government seabed quarry permits (GSQP) needed to get dredge fill materials for these reclamation projects. However, before this suspension, five (5) GSQPs were already issued to mining and quarrying companies to supply reclamation projects in Manila Bay including the Bulacan airport project of San Miguel Corporation.

Studies have shown that extractive activities in the seabed have various impacts from light and noise pollution, removal of genetic resources and overall negative effects on marine resources that protect and provide food and livelihood to coastal communities and the general population as well.

Since 2017, PANGISDA - Pilipinas and PAMALAKAYA, two of the leading fishing organizations in the country, along with scientists, environmental and church groups have been calling on the government to stop and ban these destructive activities on our coastal areas.

³ Article by CNN Philippines dated June 25, 2021: Duterte halts processing of permit applications for Manila Bay Reclamation Projects <https://www.cnnphilippines.com/news/2021/6/25/duterte-halts-application-permits-manila-bay-reclamation.html> accessed 14 November 2022)



Deepening Threats to the Coastal and Marine Ecosystems of the Philippines

A Briefing Paper on Offshore Mining, Seabed Quarrying and Reclamation Projects

By Alyansa Tigil Mina

1 Introduction

Offshore mining and seabed quarrying are emerging extractive activities in the Philippines that threaten resources in 266,000 km² coastal areas. Offshore mining provides magnetite sand or iron ore while seabed quarrying supplies the needed dredgefill materials for land reclamation projects. All these – offshore mining, seabed quarrying and reclamation projects - are meant to increase economic activity. Yet, they have greater negative impacts on the environment, and livelihoods of coastal communities.

At present, there are 11 large-scale offshore mining projects: a) one (1) project located in Gonzaga, Cagayan is under the development and construction phase, and; b) ten (10) projects in Pangasinan, Leyte and Cagayan are under the exploration phase. There are also seven (7) applications in Capiz, Aklan, Iloilo, Negros Oriental, Negros Occidental, and Leyte.¹

While offshore mining and seabed quarrying are clearly extractive activities, land reclamation seeks to create new land and increase land resources that can be used for development. Land or dredgefill used for reclamations are mainly sourced from either land-based quarries or seabeds

¹ MGB Website Mining Tenements Catalog as of December 2020 https://mgb.gov.ph/attachments/article/50/MRMS_DECEMBER_2020_Catalog.pdf (accessed 16 July 2022)



As of July 2022, there were forty-seven (47) reclamation projects covering a total area of 12,103-hectares. These were pre-qualified with a Memorandum of Understanding and approved with a Memorandum of Agreement. Sixteen (16) are being implemented with Notices to Proceed. Of the 16 projects, eight (8) are located in NCR , five (5) in Region IV-A and B, and three (3) in the Visayas.²

The huge number of reclamation projects entail seabed quarrying. As such, there are five (5) seabed quarrying permits – four (4) are in different areas in Cavite, and one (1) is in Bataan. These permits were released before the Department of Environment and Natural Resources (DENR) declared a moratorium on new applications for seabed quarrying permits in 2022.

Various groups have called on the government to stop reclamation projects as well as offshore mining and seabed quarrying activities. Coastal communities are opposing these operations because of the negative impacts on their livelihoods as they depend heavily on coastal resources. Those who vocally oppose the projects are also at risk of being harassed or threatened by development aggressors.

In a forum held in November 2021, Dr. Rico Ancog, Dean of the University of the Philippines - Los Baños School of Environmental Science and Management (UPLB-SESAM), said it is important to conduct benefits and cost analysis, and a comprehensive and integrative assessment of how offshore mining and seabed quarrying will affect the ecosystems of the area before they are allowed to proceed. Science experts, fisherfolk, and civil society groups collectively “urged the government to immediately halt these destructive projects before it is too late.”³

Alyansa Tigil Mina (ATM) members and partners are eager to engage in a campaign to halt the operations of offshore mining, seabed quarrying and reclamation projects. In order to craft a well-informed position and campaign plan against these extractive activities, this research was undertaken.

² Presentation of Atty Joseph John Literal on behalf of the Philippine Reclamation Authority during a Virtual Forum titled Killing the Goose? A Webinar on Reclamation Projects in the Philippines, 15 July 2022.

³ Press Release of OceanaPH dated November 5, 2021: Scientists, fisherfolk, civil society groups raise alarm on destructive seabed quarrying; investigation, accountability sought <https://ph.oceana.org/press-releases/scientists-fisherfolk-civil-society-groups-raise-alarm-on-destructive-seabed-quarrying/> (accessed 14 July 2022)

This briefing paper provides a situationer on offshore mining, seabed quarrying and reclamation projects in the Philippines. It includes the following:

- (1) policies pertaining to offshore mining, seabed quarrying and reclamation projects;
- (2) current applications and approved permits;
- (3) emerging issues from the perspective of different stakeholders; and,
- (4) calls and recommendations from various sectors including the Church, NGOs and academe.

Information presented in this paper are based on data that are publicly accessible through the internet. The sources of information include the DENR-MGB website; press releases and news reports on extractive and reclamation activities; and, position, calls and data shared by ATM network partners and members.

2 Policy Context: List of Current Policies (RAs, EOs, AOs, Instructions)

Offshore mining and seabed quarrying are being implemented in the country through Republic Act No. 7942 or the Mining Act of 1995, and Executive Order No. 153, s. 1999, respectively. (See Table 1)

While seabed quarrying is linked to government reclamation projects approved by the Philippine Reclamation Authority (PRA), formerly known as the Philippine Estates Authority (PEA), permits to conduct offshore mining and seabed quarrying are acquired from the Mines and Geosciences Bureau (MGB) of the DENR.

Offshore mining refers to extracting minerals and deposits submerged in the seafloor. In the Philippines, most permits are for the extraction of magnetite sand or iron ore and associated minerals. (See Table 3).

To explore an area to assess availability of mineral resources, an applicant may apply for an Exploration Permit, valid for 2 years. The permit is renewable but should not exceed a total term of six (6) years.

Meanwhile, a qualified person may enter into a Mineral Production Sharing Agreement (MPSA) or Financial and/or Technical Assistance



Agreement (FTAA) with government valid for a term not exceeding 25 years. The contract is likewise renewable. The MPSA or FTAA covers: development/ construction and utilization of mineral resources; and, continuation of exploration activities during development, construction and utilization activities.

Seabed quarrying means the process of extracting, removing and/or disposing of quarry resources found in offshore areas. It is generally done to supply raw materials for government reclamation projects.

To explore an area for availability or viability as a dredgefill source, an applicant may apply for a Special Exploration Permit (SEP), valid for 2 years and renewable for the same period.

After exploration is done, an applicant may apply for a Government Seabed Quarry Permit (GSQP). A GSQP is allowed for a period or term co-terminus with the government reclamation project it is associated with. Another instrumentality that can be applied for is the Government Dredging Permit (GDP).

In order to apply for SEP and GSQP in connection with a government reclamation project, an applicant must secure Area Clearances from the following: Mines and Geosciences Bureau (MGB); Public Estates Authority (PEA); Bureau of Fisheries & Aquatic Resources (BFAR) Office concerned; Department of Transportation and Communications (DOTC) office concerned; Local Government Unit(s) concerned if within municipal waters; Department of Energy (DOE); and, other government agencies/entities concerned, if applicable. If an area is not open or cleared for seabed quarrying, the area should be secluded from the coverage of an application.

Land reclamation involves filling foreshore and submerged areas, including intertidal zones and even productive mangrove forests, with large amounts of heavy rock and/or cement, then filling with clay and soil until the desired height is reached. Land reclamation is encouraged in the Philippines because it expands the country's total land area and allows for more development activities.

Applications to reclaim are submitted through the PRA as sanctioned by Executive Order No, 74, s. 2019. However, Area Clearances and Environmental

Compliance Certificates (ECCs) still need to be obtained from the DENR before the projects are given a full go signal.

Reclamation projects can be initiated by the following: a) PRA; b) city or provincial government units which could be funded by their internal revenue allotment or through a form of public and private partnership; c) national government agencies of government-owned or -controlled corporations; d) private sector in partnership with a, b or c; and, e) PRA with other government agencies with no authority to reclaim.

Table 1. Policies on Seabed Quarrying, Reclamation and Offshore Mining

Policy	Date Issued	Objective / Purpose
<i>Seabed quarrying</i>		
DENR Administrative Order (AO) 2022-08	May 2022	Declares a moratorium on the acceptance of new applications for special exploration permits or government seabed quarry permits
Joint DENR-PRA AO 2000-05	Mar 2000	Provides rules and regulations on the utilization of offshore areas not covered by approved mining permits and contracts as sources of dredgefill materials for government reclamation projects and for other purposes
Executive Order No. 153, s. 2013	Jan 2013	Authorizes the utilization of offshore areas not covered by approved mining permits and contracts as sources of dredgefill materials for government reclamation projects and for other purposes
<i>Reclamation</i>		
PRA AO 2019-4	June 2019	Implementing Rules and Regulations for EO 74, s. 2019
Executive Order No. 74, s. 2019	Feb 2019	Repeals EO 798, s. 2009 and EO 146, s. 2013; Transfers the PRA to the Office of the President, delegates to the PRA Governing Board the Power of the President to approve reclamation projects and for other purposes
<i>Offshore mining</i>		
DENR Memorandum Circular No. 2016-05	May 2016	Establishes the guidelines on offshore mining including mining operations, mine decommissioning and mine rehabilitation on offshore areas
DENR AO 96-40	Dec 1996	Provides the Revised Implementing Rules and Regulations of the Philippine Mining Act of 1995 (RA 7942)
RA 7942 a.k.a. Philippine Mining Act of 1995	Mar 1995	Institutionalizes a new system of mineral resources exploration, development, utilization and conservation



Areas open to Seabed Quarrying applications:

1. Offshore areas not covered by valid and existing mining rights; and
2. Offshore areas covered by expired/abandoned/cancelled offshore mining quarrying rights.

Areas excluded from seabed quarrying/dredging applications:

1. Areas closed to mining applications under Sec 15(a) of DAO 96-40:
 - a. Areas covered by valid and existing mining rights and mining applications;
 - b. Old growth or virgin forests, proclaimed watershed forest reserves, wilderness areas, mangrove forests, mossy forests, national parks, provincial/municipal forests, tree parks, greenbelts, game refuge, bird sanctuaries and areas proclaimed as marine reserves/marine parks and tourist zones as defined by law and identified initial components of the National Integrated Protected Areas System (NIPAS) pursuant to R.A. No. 7586 and such areas expressly prohibited thereunder, as well as under Department Administrative Order No. 25, Series of 1992, and other laws;
 - c. Areas which the Secretary may exclude based, inter alia, on proper assessment of their environmental impacts and implications on sustainable land uses, such as built-up areas and critical watersheds with appropriate barangay/municipal/city/provincial Sanggunian ordinance specifying therein the location and specific boundary of the concerned area; and
 - d. Areas expressly prohibited by law.
2. Less than 1,500m distance from the nearest coastline (mean low tide level) of land or island(s) and where the seabed depth is less than 30m measured at mean sea level;
3. Less than 1,000m distance from the nearest boundary of a declared NIPAS component or Protected Area such as marine park/reserve, fish sanctuary, etc.;
4. Less than 500m from all sides of production oil rigs and platforms, piers/ports, navigational sea lanes;
5. Less than 2,000m distance from both sides of submarine cables, pipelines, bridges and other facilities/infrastructures, (unless written consent is obtained from the concerned party);
6. Less than 1,000m distance from coral reefs, shoals and banks with

endangered Marine Habitat as delineated by PAWB-DENR; and

7. Exclusion/buffer corridors of 15 seconds of geographic coordinates, approximately measuring 450m wide, as reckoned from the boundary/perimeters of valid and existing Permit/Contract Mining Areas.

* Areas closed to mining application, however, may be declared open by the President, upon recommendation of the Secretary, for the expedient delivery of priority government programs/projects of national interest with due consideration to technical, environmental and social aspects.

Table 2. Other Environmental Laws and Related Policies

Policy	Date Issued	Objective / Purpose
Republic Act No. (RA) 11038, a.k.a Expanded NIPAS Act	June 2018	Expands the list of protected areas with an additional 94 new areas, to include the Tañon Strait Protected Seascape and Philippine Rise Marine Resource Reserve.
RA 10654, a.k.a. Amended Fisheries Code	Feb 2015	Prohibits activities that damage coral reefs; cause aquatic pollution; obstruct the navigation or flow in any stream, river, lake, or bay; or obstruct defined migration paths. Aside from the national agencies such as the BFAR, LGUs are also tasked with the protection of fisheries and aquatic resources, specifically for municipal waters (municipal waters cover 15km from the coastline).
DENR AO 96-37	Dec 1996	Revises and strengthens the Implementing Rules and Regulations of the Environmental Impact System (EIS)
Republic Act No. 7586 a.k.a. NIPAS Act	June 1992	Provides for the establishment and management of the National Integrated Protected Areas System (NIPAS)
Presidential Decree (PD) 1586	June 1978	Establishes an Environmental Impact System including environmental management related measures

Definition of terms based on policies:

- **Borrow area:** refers to an area that has been technically delineated or identified as a source area of Seabed Quarry Resources (DAO 2000-25)
- **Dredgefill Materials:** refer to suitable materials taken from the seabed which may be used for reclamation without undergoing processing (DAO 2000-25)



- **Government Reclamation Projects:** refer to reclamation of areas under water whether foreshore, offshore or inland being or to be undertaken by the National Government by and through the Philippine Reclamation Authority (PRA) formerly PEA or by any person or entity authorized by the latter under a proper contract including reclamation projects of any government units or agencies or corporations authorized to reclaim under existing laws. All these reclamation projects are undertaken with the approval of the President of the Philippines and in consultation with PEA pursuant to PD 3-A and EO 525 (DAO 2000-25)
- **Government Seabed Quarry Permit:** refers to permit issued by the Secretary of the DENR , upon the recommendation of the Director, to a Qualified Person or Government Entity/Instrumentality to utilize the areas covered by approved mining permits/contracts, including areas covered by pending mining rights applications, in connection with Government Reclamation Projects and for other purposes (DAO 2000-25)
- **Offshore mining or deep-sea mining:** process of extracting minerals and deposits submerged in the seafloor. Offshore means the water, sea bottom and subsurface from the shore or coastline reckoned from the mean low tide level up to the two hundred (200) nautical miles of the Exclusive Economic Zone (DAO 1996-40)
- **Seabed quarry resources:** refers to sand, gravel, boulders and other aggregates of loose materials from the seabed which may be used without undergoing processing: Provided that such seabed resources do not contain metals or metallic constituents and/or other valuable minerals in economically workable quantities: Provided, further that nonmetallic minerals such, bull quartz, quartz or silica, sand, sand and pebbles, precious and semiprecious stones and other nonmetallic minerals that may later be discovered and which the Director declares to be of economically workable quantities, shall not be classified under the category of "Seabed Quarry Resources" (DAO 2000-25)
- **Seabed quarrying:** means the process of extracting, removing and/or disposing quarry resources found in offshore areas (DAO 2000-25)

3 Applications and Approved Permits Across the Philippines, with Emphasis on ATM Sites of Struggles (SoS)

Offshore mining

Offshore mining in the Philippines is mainly done to extract magnetite/black sand or iron ore to meet the demand of other countries such as China, India, South Korea and Taiwan⁴, primarily for steel production. Black sand may contain traces of vanadium and titanium. Other uses of black sand are for the manufacturing of magnetic storage media and electronic products.

China is the world's biggest steel producer, followed by India and Japan. Since late 2012, there had been reports of China's deep involvement in the Philippine mining sector, both legally and illegally, as it collects gold, nickel, copper, manganese, cobalt, magnetite sand and other associated minerals.^{5,6}

Chinese firms are also linked to illegal black sand mining in many parts of the country, including rivers and foreshore areas. In 2021, Probinsyano Ako Rep. Jose Singson accused Chinese vessels of extracting black sand from Philippine shorelines.⁷

In June 2013, three (3) Chinese firms were caught illegally mining black sand along the shoreline of San Vicente in Ilocos Sur. These firms were Hong Ze Mining Corp., Yinyi Philippines Investment Holding Group, Inc. and An Bang Mining Company.⁸

⁴ Article of Daily Guardian dated May 31, 2021: Offshore iron sand mining a big boost to our economy by Engr. Edgar Mana-ay <https://dailyguardian.com.ph/offshore-iron-sand-mining-a-big-boost-to-our-economy/> (accessed 2 August 2022)

⁵ Article by Asia Sentinel dated November 13, 2012: China's Filipino Gold Rush <https://www.asiasentinel.com/p/chinas-filipino-gold-rush> (accessed 31 July 2022)

⁶ Article of Inquirer.net dated December 12, 2012: China's mining occupation of the Philippines by Rodel Rodis <https://globalnation.inquirer.net/59379/chinas-mining-occupation-of-the-philippines> (accessed 24 July 2022)

⁷ Article by CNN dated April 22, 2022: Philippine coastline receding because of Chinese mining black sand — lawmaker by Lois Calderon <https://www.cnnphilippines.com/news/2021/5/27/Luzon-coastline-receding-black-sand.html> (accessed 30 July 2022)

⁸ Article by PhilStar dated June 12, 2013: MGB stops operations of 3 Chinese black sand mining firms <https://www.philstar.com/nation/2013/06/12/952864/mgb-stops-operations-3-chinese-black-sand-mining-firms> (accessed 31 July 2022)



In August 2013, eighteen (18) Chinese nationals employed by the Hua Xia Trading and Mining Corp. were arrested for black sand mining along the coasts of Aparri in Cagayan.⁹

In the same year, other companies like Lian Xing Philippines Curving Co. Corp. and Land Wealth Resources Inc. were reported to have illegally operated in Gonzaga, Cagayan. These companies also extracted black sand when they were only supposed to dredge the coastlines and rivers in northern Cagayan towns.¹⁰ To date, communities still report that illegal black sand mining operations in Cagayan persist in the guise of river dredging.

In February 2021, there were reports of Chinese dredging vessels illegally stationed about 13 kilometers southwest off Orion Point in Bataan, allegedly in areas where there were black sand mining operations in Zambales.¹¹

According to a 2015 report by a joint DENR-DILG-DOJ Fact-Finding Committee on Illegal Mining entitled “Philippine Mining Unearthed”, black sand mining is the most common form of illegal mining operations in the country.¹²

On the legal front, the first large-scale offshore mining operation in the Philippines began operations in January 2021. Meanwhile, another 10 offshore mining projects are underway (see Table 3) and 7 applications are being processed (see Table 4).

This first large-scale offshore mining operation is led by the JDVC Resources Corporation, a subsidiary of publicly-listed company Apollo Global Capital (APL). Under its MPSA, JDVC is allowed to mine magnetite

⁹ Article by South China Morning Post dated August 6, 2013: Manila arrests 18 Chinese nationals over illegal iron ore mine <https://www.scmp.com/news/china/article/1294670/philippines-detains-18-chinese-illegal-mining> (accessed 2 August 2022)

¹⁰ Article by PhilStar dated August 4, 2013: 15 Sinos held for black sand mining in Cagayan by Charlie Lagasca <https://www.philstar.com/nation/2013/08/04/1048081/15-sinos-held-black-sand-mining-cagayan> (accessed 31 July 2022)

¹¹ Article by Philippine News Agency dated February 1, 2021: DENR urged to find out purpose of Chinese dredging vessels in PH by Azer Parrocha <https://www.pna.gov.ph/articles/1129245> (accessed 2 August 2022)

¹² Article by Business Mirror dated August 15, 2019: The dark side of black sand mining by Val Villanueva <https://businessmirror.com.ph/2019/08/15/the-dark-side-of-black-sand-mining/> (accessed 31 July 2022)

within an area of 1,902.59 hectares located 14 kilometers offshore from the municipality of Gonzaga, Cagayan.¹³ Part of the mining deal is Frank Lao of the LTE Mineral Resources involved in nickel mining in Dinagat Island and South Korean Hyung Rae Doo who also holds three (3) offshore MPSAs in Cagayan.¹⁴ This mining project was given a go despite opposition from various stakeholders.

When President Duterte issued Executive Order 130 lifting the ban on new mining, the Offshore Mining Chamber of the Philippines (OMCP) chairman shared that many companies are looking at the Philippines to explore and develop offshore mines.¹⁵

The members of the OMCP, which was organized in 2019, include seven (7) offshore mining companies, namely, Agbiag Mining and Development Corp., Cagayan Blue Ocean Offshore Aquamarine Services Corp., JDVC Resources Corp., Northern Orient Resources Development Corp., Advanced Technology Resources Mining and Business Process Technology Provider Corp., Mineralogic Resources Corp. and Royal Line Mining Corp.

Among the companies that may be interested to apply for permits are: Primetals Technologies Ltd. of Austria; Duro Felguera SA of Spain; Nakanishi Shipbuilding, Kurimoto Iron Works, Kansai Design Co., and JTrade Co. of Japan; and, other companies based in Indonesia, Malta, Australia, China, and Hong Kong.

Reclamation projects and seabed quarrying

The PRA is mandated to integrate, coordinate and direct all reclamation projects on behalf of the national government. However, the Local

¹³ JDVC Resources Corporation Project Fact Sheet: <https://eia.emb.gov.ph/wp-content/uploads/2020/01/JDVC-Public-Scoping-PDS-and-Annexes.pdf> (accessed 24 July 2022)

¹⁴ Article by Bilyonaryo.com dated December 7, 2020: From Chinese resto king to iron man: Frank Lao ties up with Apollo group for huge mining project <https://bilyonaryo.com/2020/12/07/from-chinese-resto-king-to-iron-man-frank-lao-ties-up-with-apollo-group-for-huge-mining-project/> (accessed 24 July 2022)

¹⁵ Article of Business World dated June 13, 2021: Offshore miners considering PHL after government lifts ban on new concessions by Revin Mikhael Ochave <https://www.bworldonline.com/economy/2021/06/13/375303/offshore-miners-considering-phl-after-government-lifts-ban-on-new-concessions/> (accessed 24 July 2022)



Government Code (RA 7160) also authorizes LGUs to undertake reclamation projects using their own funds.

The PRA is also tasked to coordinate with the DENR, National Economic Development Authority (NEDA) and concerned LGUs in crafting a National and/or Regional Reclamation Development Plan. While the PRA, concerned agencies and LGUs are expected to come up with Reclamation Development Plans, this does not preclude private entities from submitting applications for unsolicited reclamation projects, e.g. airport in Sangley, Cavite; Smart City reclamation project in Dumaguete, which is subjected to a Swiss challenge, in compliance with public bidding requirements.

A May 2022 list from the PRA showed that there are 175 reclamation projects lined up all over the country at different stages of application. According to People's NICHE, there are at least 46 reclamation projects in the pipeline in Manila Bay alone, which would affect 32,000-hectares of fishing waters.¹⁶ Based on the PRA Legacy Report 2016-2022, there are 29 reclamation projects with permits or near approval for implementation as of April 2022. Fifteen (15) of these are located in Manila Bay (see Table 5).¹⁷

Government seabed quarrying permits are generally issued to supply dredgefill for reclamation projects and other civil works related to government projects. In May 2022, DENR issued AO 2022-08 declaring a moratorium on the acceptance of new applications for special exploration permits or government seabed quarry permits.

Majority of the reclamation and seabed quarrying projects are found in Manila Bay. According to the DENR, Manila Bay, which covers 190 km coastline is intersected by seven (7) major rivers, draining 26 catchment basins. It is bordered by the coastal cities and municipalities of Manila, Pasay, Paranaque, Las Pinas, and Navotas, and the coastal provinces of Bataan, Pampanga, Bulacan in Region 3, and Cavite in Region 4.

¹⁶ Article by Inquirer dated August 29, 2022: Group presses total ban on Manila Bay reclamation projects <https://newsinfo.inquirer.net/1654604/group-presses-total-ban-on-manila-bay-reclamation-projects> (accessed 30 August 2022)

¹⁷ Philippine Reclamation Authority (2022) Legacy Report 2016-2022: Creating Legacy Island, Championing Coastal Resilience https://drive.google.com/file/d/1uWq8k0-9_fzHVc8dTPRYsY-EnFzzu1Ze/view (accessed 26 July 2022)

Rosario, in Cavite to supply the planned International Airport in Bulacan. On the other hand, the 10,000-has. seabed quarry permit issued to the PRA, covering offshore areas of San Nicolas Shoal along Rosario, Tanza and Naic in Cavite near the site of V.I.L. Mines, are intended to provide filling materials for various reclamation projects in Manila Bay.

Figure 3. Seabed quarrying vessels: grab and bucket dredger (top); trailing suction hopper dredgers

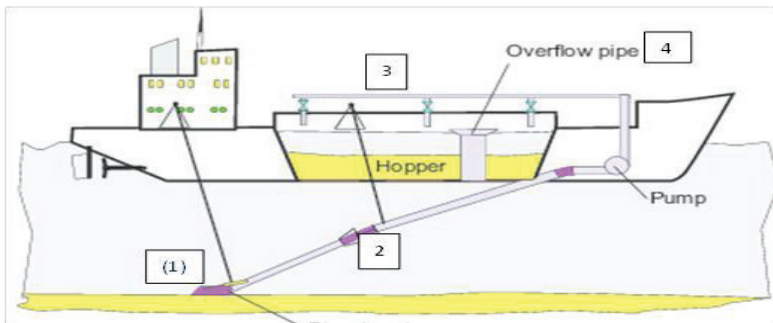
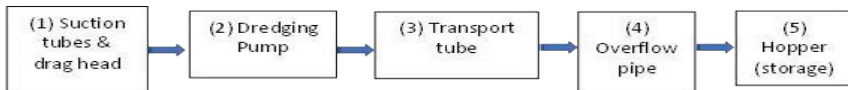




Figure 4. JVDC offshore mining process using siphoning vessels with generator sets, magnetic and gravity separators and hoppers / chute

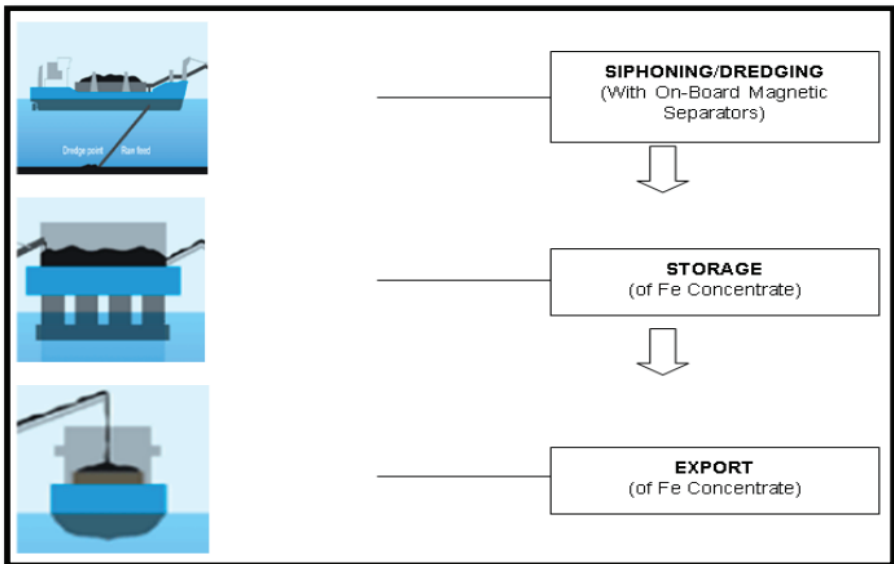


Table 3. Offshore Mining Permits^{18,19}

Tenement No.	Permit Holder	Contact Information	Date Issued	Area in hectares	Commodity	Location	Status
1	Altamina Exploration and Resources, Inc.	Jose T. Limjoco President 21 Rizal Street, Ayala Heights Village, Quezon City	6/29/2010- 6/29/2035	9,588.2396	Magnetite Sand and other associated minerals	Offshore areas of Magsingal, Sto. Domingo, San Vicente, Sta. Catalina, Vigan, Caoayan, Santa, Narvacan, Sta. Maria, Sinalit, San Esteban, Santiago, Candon, San Juan, Cabugao, Ilocos Sur; Currimaog, Pinili, Badoc, Ilocos Norte; and San Fabian, Mangaldan, Bimmalely, Lingayen, Alaminos and Dagupan City, Pangasinan	Under Exploration
2	Iron Ore, Gold and Vanadium (Phils.) Inc.	Ramon Aris F. Lipana President 83 Times St., Brgy. West Triangle, Quezon City	11/25/2020- 11/25/2045	10,064.2922	Gold, Magnetite Sand and other associated minerals	Offshore areas of Lingayen, Bimmalely, San Fabian and Dagupan, Pangasinan	Under Exploration

¹⁸ Source: MGB Website List of FTAA as of June 2022 https://mgb.gov.ph/attachments/article/50/JUNE_2022_FTAA_2A.pdf (accessed 14 July 2022)

¹⁹ Source: MGB Website List of MPSAs as of June 2022 https://mgb.gov.ph/attachments/article/50/JUNE_2022_MPSA_2A.pdf; (accessed 14 July 2022)



Tenement No.	Permit Holder	Contact Information	Date Issued	Area in hectares	Commodity	Location	Status
3 MPSA No. 249-2007-VIII (OMR)	Fastem Construction Incorporated	Gerardo R. Cuaresma President 302 Warehouse Parkwood Compound, Ortigas Ave., Ext. Stn. Domingo, Cainta Rizal	7/27/2007- 7/27/2032	4,438.4775	Iron, cobalt, gold and other associated mineral deposits	Offshore areas of Dulag and Mayorga, Leyte	Under Exploration
4 MPSA No. 337-2010-II-OMR	Peniel Resources Mining Corporation	Anthony James K. Gil President Unit 2204, President Tower, South Triangle, Quezon City	6/9/2010- 6/9/2035	14,860	Magnetite and other associated mineral deposits	Offshore areas of Sanchez Mira, Pamplona, Abulug, Ballesteros, Aparri, Buguey and Gonzaga, Cagayan	Under Exploration
5 MPSA No. 338-2010-II-OMR (Amended A)	JDVC Resources Corporation ²⁰	Napoleon M. De Leon, Jr. President 83 Times Street, West Triangle, Quezon City	6/9/2010- 6/9/2035	1,897.0242	Magnetite and other associated mineral deposits	Offshore area of Gonzaga, Cagayan	Development and Construction

²⁰ With Order dated May 20, 2016 approving the partial assignment of MPSA No. 338-2010-II-OMR from JDVC Resources Corporation to Sanlorenzo Mines, Inc. pursuant to the May 2, 2016 Deed of Assignment executed by the parties. The assignments of the 3,182.7840-, 1,448.5057-, and 2,149.8469-hectare portion of the 8,678.1608-ha contract area to Catagayan Iron Sand Mining Resources Corporation, Catagayan Mining Resources (Phils.), Inc. and Cagayan Ore Metal Mining Exploration Corporation are approved by the DENR per Order dated November 25, 2020.

Tenement No.	Permit Holder	Contact Information	Date Issued	Area in hectares	Commodity	Location	Status
6	Sanlorenzo Mines, Inc	Alberto U. Filiart President Unit 28, 2nd Floor, Facilities Center, Shaw Boulevard, Mandaluyong City	6/9/2010- 6/9/2035	2,400	Magnetite and other associated mineral deposits	Offshore areas of Sanchez Mira, Pamplona, Abulug, Ballesteros, Buguey and Gonzaga, Cagayan	Under Exploration
7	Catagayan Iron Sand Mining Resources Corporation	Hyund Rae Doo Chairman 83 Times Street, West Triangle, Quezon City	6/9/2010- 6/9/2035	3,182.78	Magnetite and other associated mineral deposits	Offshore area of Aparri, Cagayan	Development and Construction
8	Catagayan Mining Resources (Phils.), Inc.	Hyund Rae Doo Chairman 83 Times Street, West Triangle, Quezon City	6/9/2010- 6/9/2035	1,448.51	Magnetite and other associated mineral deposits	Offshore areas of Abulug and Ballesteros, Cagayan	Under Exploration
9	Cagayan Ore Metal Mining Exploration Corporation	Hyund Rae Doo Chairman 83 Times Street, West Triangle, Quezon City	6/9/2010- 6/9/2035	2,149.85	Magnetite and other associated mineral deposits	Offshore areas of Buguey, Cagayan	Under Exploration

Tenement No.	Permit Holder	Contact Information	Date Issued	Area in hectares	Commodity	Location	Status
10 MPSA No. 339-2010-II- OMR	T & T Resources and Mining Corporation	Anthony James K. Gil President Unit 2204, President Tower, South Triangle, Quezon City	6/9/2010- 6/9/2035	14,710	Magnetite and other associated mineral deposits	Offshore areas of Sanchez Mira, Pamplona, Abulug, Ballesteros, Aparri, Buguey and Gonzaga, Cagayan	Under Exploration
11 MPSA No. 340-2010-II- OMR	J & M Resources and Mining Corporation	Anthony James K. Gil President Unit 2204, President Tower, South Triangle, Quezon City	6/9/2010- 6/9/2035	9,854	Magnetite and other associated mineral deposits	Offshore areas of Abulug, Ballesteros, Aparri, Buguey and Gonzaga, Cagayan	Under Exploration
TOTAL				74,593.17			



Table 4. Applications for Offshore Mining Permits²¹

Tenement ID	Applicant/ Holder	Area in hectares	Commodity	Location	Status
1 AFTA-000009VI (Offshore)	First Palladium Mining Resources (Philis.) Corp. Mr. Ramon Aris F. Lipana, President 83 Times Street, West Triangle, Quezon City	10,474.2078	Palladium, platinum and other associated minerals	San Dionisio, Batad, Estancia and Carles, Iloilo; and Pilar, Capiz	Application forwarded to MGB-6 received on 4/18/16. With area clearance. Letter to NCIP 4/19/2016. Notice of Application issued 4/22/2016. Endorsed to MGB-CO per memorandum dated 4/26/16
2 AFTA-000010VI (Offshore)	Asian Palladium Mining Development Corp. Mr. Miguel G. Lipana, President 83 Times Street, West Triangle, Quezon City	10,478.9632	Palladium, platinum and other associated minerals	Batad, Estancia, Carles and Concepcion, Iloilo; and Pilar, Capiz	Application forwarded to MGB-6 received on 4/18/16. With area clearance. Letter to NCIP 4/19/2016. Notice of Application issued 4/22/2016 Endorsed to MGB-CO per memorandum dated 4/27/16
3 AFTA-000011VI (Offshore)	Filipinas Palladium Mining Resources, Inc. Corp. Mr. Ramon Aris F. Lipana, President	10,279.9959	Palladium, platinum, silver, etc.	Bayawan City and Basay, Negros Oriental; and Sipalay City, Ilog, Hinoba-an and Cauayan, Negros Occidental	Subject application was forwarded by MGB-CO per memorandum dated 5/10/16 received by MBG-6 on 5/26/16; Notice of Application issued 6/16/16.

²¹ Source: MGB Website Mining Tenements Catalog as of December 2020 https://mgb.gov.ph/attachments/article/50/MRMS_DECEMBER_2020_Catalog.pdf (accessed 16 July 2022)

	Tenement ID	Applicant/ Holder	Area in hectares	Commodity	Location	Status
4	AFTA-000012VI (Offshore)	Southern Luzon Exploration and Resources Inc. Miguel G. Lipana, President Bernardita R. Cruz-Herreira Corporate Secretary	30,477.6191	Palladium, platinum, silver, etc.	Carles, Iloilo; Tangalan, Numancia, Nabas and Kalibo, Aklan; and Pilar, Capiz	Application forwarded to MGB-6 per memorandum dated 5/23/2016 received on 6/1/2016. Applied area comprises of four (4) parcels (Parcel 1-5,860.9952 has., Parcel 2-4,352.6477 has., Parcel 3- 10,221.4698 has., Parcel 4-10,050.3333 has.); Notice of Application issued 8/5/16.
5	AFTA-000013VI NIR (Offshore)	Yehey Exploration & Resources, Inc. Ramon Aris, President Bernardita R. Cruz-Herreira Corporate Secretary	20,146.6804	Palladium, platinum, silver, etc.	Cadiz City and Victorias, Negros Occidental	Application forwarded to MGB-6 per memorandum dated 6/7/2016 received on 6/16/2016; Applied area comprises of two (2) parcels (Parcel 1-12,003.8850 has., Parcel 2-8,142.7954has.)



	Tenement ID	Applicant/ Holder	Area in hectares	Commodity	Location	Status
6	APSA-OMR124-VIII	Minoro Mining & Exploration Corporation 9018 Hormiga St., Makati City M.M.	3776.3116	Magnetite, etc.	Tolosa and Tanauan, Leyte	Indorsed to MGB-CO for Final Evaluation (01/31/2008). Sent Letter dated May 09, 2013 furnishing copy of Memorandum Order No.2013-01 informing that May 22, 2013 as the DEADLINE for the compliance of Minimum Capital requirements for Mining Applicants Sent Letter on August 26, 2020 Regarding E.O. 79 Section-4 (Moratorium on New Mineral Agreement) advising to convert APSA to EXPA.
7	APSA-OMR134-VIII	Mt. Mogan Resources and Development Corporation 2603 26th Floor Union Bank Plaza, Meralco Avenue, Pasig City, Metro Manila	5000.0022	Magnetite sand	Tanauan, Tolosa and Marabot, Leyte	Sent Letter dated May 09, 2013 furnishing copy of Memorandum Order No.2013-01 informing that May 22, 2013 as the DEADLINE for the compliance of Minimum Capital requirements for Mining Applicants. Not Compliant with DMO-2013-01. Sent Letter on August 26, 2020 Regarding E.O. 79 Section-4 (Moratorium on New Mineral Agreement) advising to convert APSA to EXPA.
	TOTAL		90,633.78			

Table 5. Reclamation Projects with Permits / On Process Towards Approval (as of April 2022)

	Project Name	Area in has.	Location	Status
1	Pasay Harbor City Reclamation Project	265	Foreshore and offshore areas in Pasay	with actual implementation of reclamation works
2	Pasay Reclamation Project	300	Pasay across MOA, FCA and CCP	with Notice to Mobilize (NTM) and Notice to Commence Actual Reclamation Works (NICARW)
3	Pasay Reclamation Project	90	Pasay across MOA, FCA and CCP	with NTM and NICARW
4	Manila Solar City Reclamation Project	148	Manila along Roxas Boulevard from PICC/CCP Complex	with NTM and NICARW
5	Manila Horizon Reclamation Project	419	Manila along Quirino Ave and Roxas Boulevard	with NTM and NICARW
6	Manila Waterfront City Reclamation Project	318	Manila to the west of Quirino Grandstand	with NTM and NICARW
7	Mandaue City North Reclamation and Development Project	131	Mandaue City	with NTM and NICARW
8	Batangas Port Reclamation Project	40	Foreshore and offshore areas of Brgy. Cuta, Batangas City	with Conditional Notice to Proceed
9	Navotas Coastal Bay Reclamation and Development Project	650	Navotas	with Conditional Notice to Proceed
10	Minglanila Industrial Park Project	100	Minglanila, Cebu	with Conditional Notice to Proceed
11	Samar Province Reclamation Project (formerly Catbalogan City Reclamation project)	40	Brgy. Mercedes and Bunuanan, Catbalogan City	with Conditional Notice to Proceed
12	Las Piñas Coastal Bay Project	431.71	Foreshore and offshore areas of Las Piñas City and Parañaque City	with Conditional Notice to Proceed
13	Parañaque Coastal Bay Project	203.43	Foreshore and offshore areas of Las Piñas City and Parañaque City	with Conditional Notice to Proceed
14	Bacoor Inner Island Reclamation Project	90	Bacoor City along Manila Bay	with Conditional Notice to Proceed
15	Bacoor Diamond Reclamation and Development Project	100	Southeastern shore of Manila Bay adjacent to CAVITEX	with Conditional Notice to Proceed

²² Philippine Reclamation Authority (2022) Legacy Report 2016-2022: Creating Legacy Island, Championing Coastal Resilience https://drive.google.com/file/d/1uWq8k0-9_fzHVc8dTPRyS-Y-EnFzzu1Ze/view (accessed 26 July 2022)



	Project Name	Area in has.	Location	Status
16	Bacoor Outer Island Reclamation Project	230	Southeastern shore of Manila Bay	with Memorandum of Agreement
17	New Manila (City of Pearl) Project	407	Along Manila Bay	Pre-qualified with Memorandum of Understanding
18	PNOC Energy Supply Base Port Development Project	3,772	Brgy. Mainaga, Mabini, Batangas	Pre-qualified with Memorandum of Understanding
19	Bislig Bay Reclamation Project	146.61	Bislig City	Pre-qualified with Memorandum of Understanding
20	CEZA Reclamation Development Project	200	Port Irene, Brgy. Casambalangan, Sta. Ana, Cagayan	Pre-qualified with Memorandum of Understanding
21	CEZA Port Irene REhabilitation and Development Project	4.9	Brgy. Casambalangan, Sta. Ana, Cagayan	Pre-qualified with Memorandum of Understanding
22	Pasay 260-Hectare Reclamation project	260	Pasay City	Pre-qualified with Memorandum of Understanding
23	Leganes Reclamation Project	960	Leganes, Iloilo	Pre-qualified with Memorandum of Understanding
24	Bontoc Construction of Seashore Protection and Landfill Project	3	Bontoc, Southern Leyte	Pre-qualified with Memorandum of Understanding
25	PFDA Rehabilitation of Navotas Fish Port Complex	15.62	Navotas City	Pre-qualified with Memorandum of Understanding
26	Seafont City Project	235.8	Consolacion, Cebu	Pre-qualified with Memorandum of Understanding
27	Mr. William Tan (WTEI) Reclamation Project	22	Brgy. Luzviminda, Puerto Princesa City, Palawan	Pre-qualified with Memorandum of Understanding
28	Lapu-Lapu City Reclamation Project	203	Brgys. Canjulaos and Punta Engaño, Lapu-Lapu City, Cebu	Pre-qualified with Memorandum of Understanding
29	Mandaue Reclamation Project	95	Brgys. Centro and Looc, Mandaue City	Pre-qualified with Memorandum of Understanding
	TOTAL	6,112.842		

Table 6. Seabed Quarrying Permits²³

	Tenement No.	Permit Holder	Date issued	Area in hectares	Location
1	OMR001-2008-IV (Amended)	Philippine Reclamation Authority	2008	10,000	Naic, Ternate, Tanza, Rosario and Noveleta, Cavite
2	OMR002-2019-IV	V.I.L Mines, Inc.	2019	5,000	Noveleta, Rosario and Tanza, Cavite
3	OMR003-2021-IV	Avalar Mining Corporation	2021	1,656.5266 + 3,146.6846	Cavite City, Cavite
4	OMR004-2021-IV	Silverquest Mining Resources, Inc.	2021	2,124.3581	Ternate and Naic, Cavite
5	OMR005-2021-IV	Cargon Mining Corporation	2021	3,974.3028	Limay, Bataan
	TOTAL			25,901.8721	

Table 7. Applications for Government Seabed Quarrying Permits²⁴

	Tenement No./ Application No.	Holder	Area in hectares	Location
1	OMR-001-2018-IV	Bird's Nest Resources Corporation	9,932.0580	Limay, Orion, Mariveles and Pilar, Bataan and Hagonoy, Bulacan
2	OMR-002-2018-IV	Sands Mining & Dev't Corporation	6,296.6620 + 82.8738	Cavite City, Cavite and Mariveles, Bataan
3	OMR-003-2019-IV	Bering Sea Mining Corporation	9,933.16	Pilar, Orion and Limay, Bataan
4	OMR-004-2019-IV	Kanglam Mining Corporation	9,936.56	Limay and Mariveles, Bataan
5	OMR-005-2019-IV	Sands Mining & Development Corp.	6,879.62	Cavite City, Cavite and Mariveles, Bataan

²³ Source: DENR Document as of December 2021, obtained in June 2022. The coverage of the GSQP shall specifically be for DENR evaluated Borrow Areas, which shall not be more than 10,000 hectares and with a term co-terminus with the particular Government Reclamation Project: Provided, That the Borrow Areas shall, ipso facto, revert back to the jurisdiction of the DENR after the Government Reclamation Project.

²⁴ Source: MGB Website Mining Tenements Catalog as of December 2020 https://mgb.gov.ph/attachments/article/50/MRMS_DECEMBER_2020_Catalog.pdf (accessed 16 July 2022)



6	OMR-006-2019-IV	Palasyo Mineral Resources, Inc.	4,798.33	Samal, Abucay and Balanga City, Bataan; Lubao and Masantol, Pampanga; and Hagonoy, Bulacan
7	OMR-008-2019-IV	Bird's Nest Resources Corporation	8,561.1873	Unisan, Pitogo, Macalelon and Gen. Luna, Province of Quezon
8	OMR-009-2019-IV	Palasyo Mineral Resources, Inc.	9,968.6539	Pagbilao, Padre Burgos, Agdangan and Unisan, Province of Quezon
9	OMR-014-2020-IV	Cargon Mining Corp.	5,224.8075	Nasugbu, Batangas
10	OMR-015-2020-IV	GC8 Dredging and Reclamation Corporation	9,544.91	Nasugbu, Lian, and Calatagan, Batangas
11	OMR-016-2021	Seabed Resources, Inc.	497.1783 + 2,236.0845	Ternate and Cavite City
	TOTAL		83,892.0853	

Source: DENR

4 Issues and Perspectives

Studies have shown that extractive activities in the seabed, including offshore ore mining and seabed quarrying, have various impacts. These range from light and noise pollution, extraction of seafloor substrate resulting in sediment disturbance and potential release of toxic chemicals, removal of genetic resources from the seabed, to the overall effect on marine life.

Coastal communities depend on marine resources for their livelihoods and enjoy many other benefits from the natural resource ecosystem.^{25,26} Extraction activities tend to cause irreversible harm since disturbing the seabed means destroying habitats of many species.

Further, with or without ore mining in the foreshore areas, these offshore activities will also have other indirect impacts on other land ecosystems.

²⁵ Kaikkonen, L., Venesjärvi, R., Nygård, H., & Kuikka, S. (2018) Assessing the impacts of seabed mineral extraction in the deep sea and coastal marine environments: Current methods and recommendations for environmental risk assessment. *Marine Pollution Bulletin* Vol 135, 1183-1197. <https://doi.org/10.1016/j.marpolbul.2018.08.055>

²⁶ Miller, K., Thompson, K., Johnston, P. & Santillo, D. (2018) An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps. *Frontiers in Marine Science* <https://doi.org/10.3389/fmars.2017.00418>

These include coastal erosion, instability of shorelines, changes in the seafloor and how waves hit the shorelines.

Meanwhile, land reclamation activities in the past led to noise and dust pollution, loss/death of coral reefs, sea grasses and mangrove forests, decline in fish productivity and displacement of coastal communities.

Land reclamation also impacts other coastal ecosystem services such as regulating services (pollution control services and carbon sink function of tidal flats; flood control and bio-shield from surges), and supporting services (tidal flats are refueling sites of migratory birds).²⁷

The destruction of natural coastlines through reclamation means blocking the flow of waters from ridge to reef, and removing coastal protection from sea-level rise and storm surges. Ultimately, these not only affect the livelihoods of millions of fisherfolk but also inner communities that unknowingly depend on coastal ecosystems for its regulating services (coastal protection).

- **Compilation of Impacts of Offshore Mining, Seabed Quarrying and Reclamation Projects**

- 1. Red tide and release of heavy metal causing health impacts**

*“Disturbing the seabed could cause cysts of *Pyrodinium bahamense*, the primary cause of paralytic shellfish poisoning or red tide, to be resuspended from the sediments and release toxins in the water. These may in turn contaminate mussels and other shellfish harvested and sold in nearby markets...Heavy metals in the sediments may also be released into the water channel.”* (Press Release outlining the Statement of Academician Fernando P. Siringan, University of the Philippines Marine Science Institute (UP-MSI)²⁸

“In one of the areas affected by black sand mining, operations showed a growing number of cases of skin and lung diseases... and other related

²⁷ Montenegro L., Diola, A. & Remedio, E. (2005) New Land - At What Price? Land Reclamation In The Philippines. EEPSEA Policy Brief No. 2005-PB5 <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/46078/132566.pdf>

²⁸ Press Release of OceanaPH dated November 5, 2021: Scientists, fisherfolk, civil society groups raise alarm on destructive seabed quarrying, investigation, accountability sought <https://ph.oceana.org/press-releases/scientists-fisherfolk-civil-society-groups-raise-alarm-on-destructive-seabed-quarrying/> (accessed 14 July 2022)



diseases such as severe eye irritation and hernia.” (Explanatory Note of Senate Bill No. 960 filed by Sen. Leila de Lima)²⁹

In Baybay City, Leyte, the reclamation project caused water backflow from the sea to residences. Because waste water is near them, children experienced itching and acquired parasites in their system.³⁰

2. Coastal erosion, land sinking and subsidence

“Changes in the seafloor will change the direction of the waves. This can trigger more concentrated wave energy that can lead to coastal erosion. By taking out sand from the shore, you are also removing support from the upper part of the sediments.” (Academician Fernando P. Siringan, UP-MSI)³¹

“Mining is not compatible with Lingayen Gulf. It is used for fishing, tourism and other purposes but not for mining. The deep holes created by drilling may cause coastal or shoreline erosion. An earthquake will intensify erosion and dislodge sediments, causing the water force to go up and may result to a tsunami. Lingayen Gulf is prone to tsunami, and an earthquake can trigger a tsunami as high as seven meters.” (Dr. Irene De Vera Pangasinan State University)³²

“In Cagayan, houses are crumbling because the sand underneath are getting eroded; rice fields are shrinking and harvests are becoming less as the fields are inundated by saltwater... Black sand mining operations

²⁹ Senate Bill No. 960: An Act Prohibiting Black Sand Mining in the Philippines, Providing Penalties Therefor, and for Other Purposes <https://legacy.senate.gov.ph/lisdata/2451821120!.pdf> (accessed 30 July 2022)

³⁰ Fernandez, G. (2019) The Social, Environmental and Economic Effects of a Reclamation Project: From the Lived Experience of the Residents of an Affected Local Coastal Village in the Philippines. *Asia Pacific Journal of Multidisciplinary Research* Vol. 7, No. 2. https://www.researchgate.net/publication/334745789_The_Social_Environmental_and_Economic_Effects_of_a_Reclamation_Project_From_the_Lived_Experience_of_the_Residents_of_an_Affected_Local_Coastal_Village_in_the_Philippines (accessed 28 September 2022)

³¹ Press Release of OceanaPH dated December 1, 2021: The dire consequences of Manila Bay and Lingayen Gulf seabed quarrying: Experts warn of red tide, coastal erosion, loss of fisherfolk livelihood <https://ph.oceana.org/press-releases/the-dire-consequences-of-manila-bay-and-lingayen-gulf-seabed-quarrying-experts-warn-of-red-tide-coastal-erosion-loss-of-fisherfolk-livelihood/> (accessed 24 July 2022)

³² Ibid.

worsened flooding in coastal and riverside community due to bank erosion.” (Explanatory Note of Senate Bill No. 960 filed by Sen. Leila de Lima)³³

“There are several data available. Black sand mining in Lingayen Gulf caused the sinking of the village of Narvacan during an earthquake.” (Pablo Rosales, PANGISDA Pilipinas)³⁴

3. Flooding and geohazard risks

“The reclaimed land will block rainwater from escaping to the sea thereby trapping it within the city. Because the reclaimed land will be higher than the water, it will form a bowl that will keep flood waters in.”³⁵

“Reclaimed lands are also to blame for the rise of the water level on the bay which causes massive flooding and storm surges. They badly affect not just the lives of the residents but also may shut down local economic activities particularly those in low-lying cities. These disasters actually intensify the vulnerability of our cities.”³⁶

The Bulacan Aerotropolis project will block the water that drains from river systems of Pampanga and Bulacan to Manila Bay: “Taliptip fisherfolk said that reclaiming the sea for the construction of the proposed airport will block the flow of water from surrounding mountains. The town of Bulakan and neighboring municipalities will be at risk of flooding.” (Meth Mabanua, fisherfolk in Brgy. Taliptip, Bulakan)³⁷

4. Environmental destruction causing irreversible damage on seabeds and organisms

³³ Senate Bill No. 960: An Act Prohibiting Black Sand Mining in the Philippines, Providing Penalties Therefor, and for Other Purposes <https://legacy.senate.gov.ph/lisdata/2451821120!.pdf> (accessed 30 July 2022)

³⁴ Ibid.

³⁵ Article by Rappler dated March 9, 2013: Cheat sheet – Manila Bay Reclamation <https://www.rappler.com/life-and-style/23307-manila-bay-reclamation/> (accessed 28 September 2022)

³⁶ Article by SmartCitiesDive: The Unsustainable Truth about Land Reclamation: The Worsening Impacts of Manila Bay Reclamation <https://www.smartcitiesdive.com/ex/sustainablecitiescollective/unsustainable-truth-about-land-reclamation-worsening-impacts-manila-bay-r/1271899/> (accessed 28 September 2022)

³⁷ Article of Maritime Fairtrade dated April 1, 2022: Philippine: Fisheries under threat from airport development by Ina Alleco Silverio <https://maritimefairtrade.org/philippine-fisheries-threat-airport-development/> (accessed 29 September 2022)



“Changes in the overall characteristics of the benthic habitats will occur not only in the area where filling materials are sourced but will spread to other areas as well. The seafloor will change along with the benthic habitat, and organisms present will be disrupted and endangered. There are studies done in the UK which show how organisms that were ravaged by seabed quarrying were unable to fully recover even after 15 years. Any changes in the benthic habitat will inevitably affect our fisheries.. Whatever is taken from the seabed cannot be renewed.” (Academician Fernando P. Siringan, UP-MSI)^{38,39}

“The scrapping of the ocean floor by machines can alter or destroy deep-sea habitats, leading to the loss of species and fragmentation or loss of ecosystem structure and function... Because of their interconnectivity, massive extraction of resources have direct impact to fisheries.” (Nilda Baling, DENR-Biodiversity Management Bureau)⁴⁰

“The dredging activity messed up with the reproductive patterns of aquatic resources and decimated the fish and shrimp population, including that of the aramang or spider shrimp, which is endemic in the area.” (Article based on a statement of a Cagayan fisherfolk)⁴¹

Reclamations will bury very large areas of productive coral reefs and seagrass meadows. *“The proposed massive reclamation project will negatively impact the biodiverse-rich marine protected areas directly or indirectly and will disturb the vertical connectivity between the shore/*

³⁸ Press Release of OceanaPH dated November 5, 2021: Scientists, fisherfolk, civil society groups raise alarm on destructive seabed quarrying, investigation, accountability sought <https://ph.oceana.org/press-releases/scientists-fisherfolk-civil-society-groups-raise-alarm-on-destructive-seabed-quarrying/> (accessed 14 July 2022)

³⁹ Article of Maritime Fairtrade dated January 22, 2022: Experts Call For End To Destructive Seabed Quarrying In The Philippines <https://maritimefairtrade.org/end-destructive-seabed-quarrying-philippines/> (accessed 14 July 2022)

⁴⁰ Article of Business Mirror dated October 17, 2021: Seabed quarrying, offshore mining threaten coastal, marine biodiversity by Jonathan Mayuga <https://businessmirror.com.ph/2021/10/17/seabed-quarrying-offshore-mining-threaten-coastal-marine-biodiversity/> (accessed 26 July 2022)

⁴¹ Article of Manila Times dated April 24, 2022: Fishers rally against black sand mining by Leander Domingo <https://www.manilatimes.net/2022/04/24/news/regions/fishers-rally-against-black-sand-mining/1841035> (accessed 30 July 2022)

shallow to deeper species assemblage (Abesamis et al., 2020)" (National Academy of Science and Technology Statement on the Smart City Reclamation Project in front of Dumaguete City)⁴²

On the 174-ha Dumaguete reclamation: *"I think we really need to avoid this because there is no doubt in my mind that is going to be a monumental ecological disaster. It's going to be this tomb for marine ecosystems...We're talking about a thousand basketball courts worth of coral reefs, maybe one and a half thousand basketball courts worth of seagrass bed, and we're talking about at least 150 coral species, at least 200 species of fish, most of those important to local fisheries. You have turtles. You have seagrass species, mangrove species,"* (Dr. Rene Abesamis, Silliman University Institute of Environmental and Marine Sciences)⁴³

Reclamations will destroy tidal flats which are refueling spots of migratory birds. Losing these areas will affect their life cycles and even population.⁴⁴

5. Loss of livelihoods

"This proposed offshore mining would certainly spell doom to the livelihood of thousands of small fishers who subsist in Lingayen Gulf through various forms of fishing. Not to mention its adverse impact to the livelihood of other coastal residents involved in inland fisheries and salt farms in interior parts...The proposed project would entail 'devastating impact' to the livelihood of not less than 5,000 small fisherfolk in Pangasinan's Dagupan City, Binmaley, Lingayen, Labrador,

⁴² Statement of NAST posted on Twitter on July 29, 2021 <https://twitter.com/nastph/status/1420519436688138241/photo/1>

⁴³ Article by ABS-CBN News dated September 16, 2021: 'An underwater tomb': Dumaguete reclamation would be a monumental ecological disaster - scientist <https://news.abs-cbn.com/news/07/16/21/dumaguete-reclamation-monumental-ecological-disaster-scientist> (accessed 28 September 2022)

⁴⁴ Montenegro L., Diola, A. & Remedio, E. (2005) New Land - At What Price? Land Reclamation In The Philippines. EEPSEA Policy Brief No. 2005-PB5 <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/46078/132566.pdf>



and Sual towns.” (Bobby Roldan, Pambansang Lakas ng Kilusang Mamamalakaya ng Pilipinas (PAMALAKAYA) Central Luzon)⁴⁵

Offshore mining in the coast of Cagayan slashed the income of some 11,000 fisherfolk. *“Before the river dredging operations started in the first quarter of 2021, a fisherman can catch up to 200 kilos of fish overnight off the coast of Aparri. But these days, they say they are lucky if they can take home 3 kilos of fish...From December 2021 to April 2022, each of them would earn from P300 to P1,000 for three days of work, a far cry from their P3,000 to P7,000 earnings before the dredging activities.”* (Article based on statements of a Cagayan fisherfolk and Diana Moraleda, San Pedro Telmo Parish Coordinator)⁴⁶

Offshore mining in Lingayen Gulf will affect fish sanctuaries and protected areas where about 85.75% of the annual fisheries production of the Ilocos Region come from, amounting to around 144,218 metric tons of fish produce. It will also affect *“around 3,000 cages of bangus with an estimated production of 125,000 to 150,000 MT amounting to at least P16.5 billion annually.”* It will impact the livelihoods of about 44,517 fisherfolk from Pangasinan and La Union. Tourism in the coastal towns will likewise be affected. (Article based on statements of representatives of BFAR, and Tugon Kabuhayan, Binmaley Municipal Agricultural and Fishery Council, and Provincial Tourism and Cultural Affairs Office of Pangasinan)⁴⁷

“Apart from modernization, we need to fight for the exclusive rights of our small fishers in their communities. What is the point of modern technology and equipment if our fishermen cannot make use of this because their fishing grounds are taken over by reclamation projects? These projects do not only destroy the marine ecosystem, but displace

⁴⁵ Article by PhilStar dated September 13, 2021: Offshore mining in Lingayen Gulf will destroy fishers' livelihoods, group says <https://www.philstar.com/nation/2021/09/13/2126847/offshore-mining-lingayen-gulf-will-destroy-fishers-livelihoods-group-says> (accessed 30 July 2022)

⁴⁶ Ibid.

⁴⁷ Article by Malaya dated November 3, 2021: Groups oppose Lingayen mining project by Jed Macapagap https://malaya.com.ph/news_business/groups-oppose-lingayen-mining-project/ (accessed 30 July 2022)

small fisherfolks from their fishing community” (Ronnell Arambulo, PAMALAKAYA National Spokesperson)⁴⁸

The Bulacan Aerotropolis “threatens not only the livelihood of some 700 fishing families in the towns of Bulakan and Obando in Bulacan province, but also to the food security of the country. This is because the project will have a severe impact on the marine biodiversity of Manila Bay should it be realized...It is not only the livelihood of 700 fishing families in seven coastal sitios (villages) of Brgy. Taliptip in Bulakan that is threatened, but their very houses, as well as their communities, stand to be demolished too.”⁴⁹

- **Summary of Responses of Affected Communities and Environmental Groups**

1. Offshore Mining

1 Fisherfolks and environmental groups oppose black sand mining and “dredging” in Gonzaga and Appari, Cagayan

Since 2010, ATM’s partner organization, the Federation of Environmental Advocates of Cagayan (FEAC), has reported heavy siltation of ocean floors affecting the breeding grounds of various marine species. This is alleged to be due to the approved offshore mining exploration in the area. The source of food and livelihoods of around 37,000 fisherfolk in the coastal communities are greatly affected. In Cagayan, other than mining permits, some operators hold dredging permits in the guise of implementing river restoration activities.⁵⁰

⁴⁸ Article by Business World dated August 23, 2022: Fisherfolk seek halt to reclamation on municipal fisheries by Luisia Maria Jacinta <https://www.bworldonline.com/economy/2022/08/23/470204/fisherfolk-seek-halt-to-reclamation-on-municipal-fisheries/> (accessed 28 September 2022)

⁴⁹ Article of Maritime Fairtrade dated April 1, 2022: Philippine: Fisheries under threat from airport development by Ina Alleco Silverio <https://maritimefairtrade.org/philippine-fisheries-threat-airport-development/> (accessed 29 September 2022)

⁵⁰ Article of Licas.News dated September 29, 2021: Opposition to black sand mining needs people’s support, says Philippine priest by Mark Saludes <https://www.licas.news/2021/09/29/opposition-to-black-sand-mining-needs-peoples-support-says-philippine-church-official/> (accessed 30 July 2022)



Related to Cagayan offshore mining is the unsolved killing of anti-mining activist and local leader Gensun Agustin. He was shot dead in March 2010 after conducting a briefing with community leaders.

To date, the struggle against offshore mining in Cagayan persists. One of the groups in the area is the Cagayan Advocates for Integrity of Creation (CAIC) led by Father Manuel Catral. ATM and other civil society and environmental organizations are part of this.

Fisherfolk and communities from the neighboring towns of Gattaran, Ballesteros, Buguey, Gonzaga and Sta. Ana have also alleged that the river dredging activities in their coastal areas are actually black sand mining operations. Such activities have already affected their livelihoods and environment. During their Earth Day rally in April 2022, the fishers said that “the dredging activity produced sound, light and chemicals that have polluted and gravely disturbed the (coastal) ecosystem.”⁵¹ Reports said that since 2021, residents have observed the presence of vessels of Chinese firm Riverfront Construction Inc.

Cagayan Gov. Manuel Mamba said that the dredging activities are part of the ongoing large-scale dredging project that is meant to rehabilitate the heavily silted Cagayan River, which is part of the re-establishment of the Aparri port and an international seaport.⁵²

2 Pangasinan executives, stakeholders protest black sand mining in Lingayen

FTAA-07-2020-I-OMR covering more than 10,000-has. of the gulf of Lingayen, currently at the exploration stage, is expected to haul a total of 625-million metric tons of black sand in a span of 25 years. The project is opposed by the provincial government of Pangasinan, which asserts that the Lingayen Gulf is classified as an environmentally

⁵¹ Article by CBCP News dated April 22, 2022: Fisherfolk march to stop black sand mining in Aparri <https://cbcnews.net/cbcnews/fisherfolk-march-to-stop-black-sand-mining-in-aparri/> (accessed 30 July 2022)

⁵² Article by PhilStar dated December 24, 2020: Dredging of Cagayan River seen to start soon <https://www.philstar.com/nation/2020/12/24/2066137/dredging-cagayan-river-seen-start-soon> (accessed 30 July 2022)

critical area per Proclamation No. 156 in 1993.⁵³ According to BFAR, the gulf is home to twelve (12) fish sanctuaries and marine protected areas.

The project is also opposed by the fisherfolk group PAMALAKAYA as mining exploration and other activities would mean devastating impacts on the livelihoods of at least 5,000 fishers in Pangasinan, as well as the fish pond and salt farm operators.^{54,55} A community organization in the neighboring La Union Province, Timek-La Union, also opposed the project since the operations will destroy the dense mangrove forests in their coasts.⁵⁶

3 Sen. Leila de Lima and Probinsyano Ako Partylist Rep. Jose Singson filed bills related to black sand mining; Chamber of Mines concur in observed dredging and black sand mining link

In 2016 and 2019, Sen. Leila de Lima filed Senate Bill No. 960, prohibiting black sand mining in the coastal areas of the Philippines; and, SB No. 1075, imposing stiff penalties and hefty fines against individuals engaging in black sand mining in the coastal areas of the country.

In October 2021, Sen. De Lima also filed Senate Resolution No. 920 directing the Senate Committee on Environment, Natural Resources and Climate Change to investigate “the detrimental and disastrous

⁵³ Article by Inquirer.net dated September 25, 2021: Pangasinan execs protest massive black sand mining in Lingayen Gulf by Yolanda Sotelo <https://newsinfo.inquirer.net/1492563/pangasinan-execs-protest-massive-black-sand-mining-in-lingayen-gulf> (accessed 30 July 2022)

⁵⁴ Article of Maritime Fairtrade dated January 22, 2022: Experts Call For End To Destructive Seabed Quarrying In The Philippines <https://maritimefairtrade.org/end-destructive-seabed-quarrying-philippines/> (accessed 14 July 2022)

⁵⁵ Ibid.

⁵⁶ Article by PhilStar dated September 13, 2021: Offshore mining in Lingayen Gulf will destroy fishers’ livelihoods, group says <https://www.philstar.com/nation/2021/09/13/2126847/offshore-mining-lingayen-gulf-will-destroy-fishers-livelihoods-group-says> (accessed 30 July 2022)



effects” of the Iron Ore, Gold and Vanadium Resources (Phils.) Inc. mining project in the Lingayen Gulf.⁵⁷

In 2012, a Fact-Finding Committee on Illegal Mining composed of the Department of Justice (DOJ), DENR and the Department of Interior and Local Government (DILG) was created to investigate illegal mining operations in the country.^{58,59} Sen. De Lima was the DOJ Secretary in 2013 when the crackdown of illegal black sand mining operations in Central and Northern Luzon was done together with the National Bureau of Investigation and the MGB of the DENR.⁶⁰

In 2021, Probinsyano Ako Partylist Rep. Jose Singson filed House Bill No. 6321 seeking to prohibit the exportation of black sand and associated minerals. In a hearing tackling the bill, Singson alleged that Luzon coastlines are receding due to the extraction of black sand by Chinese miners. Heavy equipment are being used and the minerals are shipped out in barges.

In the same hearing, Chamber of Mines Executive Director Ronald Recidoro agreed with Rep. Singson. He said while it appears that the contractors are dredging the river, they are also carting out the black sand. Both Singson and Recidoro suggested the processing of black sand locally to help generate jobs.⁶¹

⁵⁷ Article by Business World dated October 1, 2021: De Lima files resolution to investigate black sand mining in Lingayen Gulf by Alyssa Nicole Tan <https://www.bworldonline.com/the-nation/2021/10/01/400512/de-lima-files-resolution-to-investigate-black-sand-mining-in-lingayen-gulf/> (accessed 30 July 2022)

⁵⁸ Article by Inquirer.net dated November 6, 2012: 3 agencies to pursue illegal loggers, miners by Christine Avendaño <https://newsinfo.inquirer.net/302176/3-agencies-to-pursue-illegal-loggers-miners> (accessed 1 August 2022)

⁵⁹ Article by ABS-CBN News dated November 6, 2012: Fact-finding bodies formed vs illegal mining, logging <https://news.abs-cbn.com/nation/11/05/12/fact-finding-bodies-formed-vs-illegal-mining-logging> (accessed 1 August 2022)

⁶⁰ Article by PhilStar dated August 5, 2013: De Lima vows to pursue raps vs Chinese black sand miners by Camille Diola <https://www.philstar.com/headlines/2013/08/05/1055081/de-lima-vows-pursue-raps-vs-chinese-black-sand-miners> (accessed 31 July 2022)

⁶¹ Article by CNN dated April 22, 2022: Philippine coastline receding because of Chinese mining black sand — lawmaker by Lois Calderon <https://www.cnnphilippines.com/news/2021/5/27/Luzon-coastline-receding-black-sand-.html> (accessed 30 July 2022)

2. Reclamation and Seabed Quarrying

1 Fisherfolk, communities along the coastline of Manila Bay including Cavite, Bulacan and Bataan called on government to stop reclamation and seabed quarrying projects

PANGISDA Pilipinas and PAMALAKAYA are two of the broadest fishing community organizations in the Manila Bay Region. Since 2017, along with scientists and environmental groups, they have been calling on the local and national governments to stop the destructive reclamation projects and the needed seabed quarrying operations to fill the reclamation sites.

PAMALAKAYA Chairperson Fernando Hicap argued that the reclamation activities violate the Supreme Court mandamus in 2008 ordering the restoration and rehabilitation of Manila Bay. He said: *“The local execs of Cavite are at risk of violating the highest court’s order to protect and restore the fishing waters of Manila Bay if they will not cease and desist from pursuing destructive reclamation projects. We are demanding Cavite Governor Jonvic Remulla to heed the call of his constituents in coastal areas to stop dump-filling the Manila Bay that will result in their displacement and destruction of fishing grounds.”*⁶²

In 2019, Manila Bay Para sa Tao (MBPST), a coalition of fisherfolk, non-government organizations (NGO), women, urban poor, student organizations, and other civil society groups called for “a pro-people rehabilitation of Manila Bay that will genuinely benefit and promote not only the well-being of coastal communities but also of future generations”. MBPST asserts that reclamation projects are not a part of Manila Bay rehabilitation.⁶³

Referring to the Cargon Mining Corporation’s seabed quarrying operations in Bataan, Pablo Rosales, PANGISDA Pilipinas leader said:

⁶² Article by GMA News dated October 13, 2020: Fishers group calls on Cavite gov’t to stop reclamation project in Manila Bay by Joviland Rita <https://www.gmanetwork.com/news/topstories/regions/759642/fishers-group-calls-on-cavite-gov-t-to-stop-reclamation-project-in-manila-bay/story/> (accessed 31 July 2022)

⁶³ Press Release of Manila Bay Para Sa Tao dated February 26, 2019: Manila Bay Para sa Tao slams anti-poor reclamation project <https://focusweb.org/peoples-organization-slams-anti-poor-manila-bay-reclamation-project/> (accessed 29 September 2022)



“The destruction caused by seabed quarrying affects not only marine life but also the livelihood of fisherfolk. Those of us based in Bataan fear the impact of the planned seabed quarrying project in the area. We call on the government to care for our fisherfolk who bring food to coastal communities.”⁶⁴

2 BFAR denied application for Area Clearance for GSQPs in Manila Bay to Tayabas Bay, Quezon

In 2021, the BFAR denied the application for the issuance of Area Clearance for various projects covering a total of 94,308 hectares offshore Metro Manila up to Tayabas Bay in Quezon.

On March 3, 2021, BFAR denied 10 applications citing the Fisheries Code (RA 10654). BFAR National Director Eduardo Gongona said: *BFAR “cannot simply dismiss the potential adverse impacts of seabed quarrying on fisheries... further degradation to fisheries habitats in Manila Bay and the rest of our fishing grounds will surely result to depletion in fisheries biodiversity and productivity.”^{65,66}*

3 BFAR said in Senate hearing that reclamation in Manila Bay will destroy fish spawning area

In 2014, an official of BFAR said that the planned reclamation in the Las Piñas-Paranaque Critical Habitat and Eco-Tourism Area, a Ramsar site, will affect the spawning area of fishes in Manila de Bay. This is based on a study by the National Fisheries Research and Development institute in 2012.⁶⁷

⁶⁴ Article by Esquire Philippines dated November 6, 2021: Filipino Fishermen Alarmed by Seabed Quarrying; Irreversible damage is being done <https://www.esquiremag.ph/politics/news/seabed-quarrying-philippines-a00203-a00293-20211106> (accessed 31 July 2022)

⁶⁵ Article by Quezon Chronos Planned massive seabed quarry operations in Tayabas Bay opposed by John Bello <https://quezonchronos.net/?p=363> (accessed 26 July 2022)

⁶⁶ Article by Maharlika TV dated September 11, 2021: Ghost firm menaces Tayabas Bay by Dong Ampil-Delos Reyes <https://maharlika.tv/2021/09/11/ghost-firm-menaces-tayabas-bay/> (accessed 31 July 2022)

⁶⁷ Press Release of Senate dated March 5, 2014: BFAR: Reclamation will destroy fish spawning area of Manila Bay https://legacy.senate.gov.ph/press_release/2014/0305_villar1.asp (accessed 28 September 2022)

4 Sen. Risa Hontiveros and Sen. Leila de Lima filed two separate resolutions on land reclamation projects

In July 2021, Sen. Hontiveros filed Senate Resolution No. 807 calling for a probe into the proposed reclamation project in Dumaguete City. The same project is opposed by marine scientists, among others.

In December 2021, Sen. de Lima filed Senate Resolution No. 956 directing the appropriate committee to conduct an inquiry on the reported large-scale land reclamation projects that are threatening coastal and marine ecosystems around the country.

5 Calls / Summary of Recommendations from Different Sectors

1. Stop offshore mining and seabed quarrying

“The science is clear that seabed quarrying causes massive damages and losses in fishing grounds and marine resources that serve as sources of livelihood for subsistence fisherfolk. These will cause irreversible destruction on the fragile marine ecosystems that we are trying to safeguard and restore in order to be resilient against climate change and address the poverty and health situation in the country. We urge the government to immediately halt these destructive projects before it is too late. It is not enough to merely place a spotlight on the harmful human activities that are slowly killing our planet. We need to call on our government to act now and not allow such destructive practices to continue.” (Atty. Gloria Ramos, Oceana Philippines)^{68,69}

2. Stop reclamation projects

“Given the environmental cost of reclamation, it should be a no-brainer for the DENR to oppose this activity if they are true to their mandate of environmental protection...Scientists and environmental experts

⁶⁸ Article of Maritime Fairtrade dated January 22, 2022: Experts Call For End To Destructive Seabed Quarrying In The Philippines <https://maritimefairtrade.org/end-destructive-seabed-quarrying-philippines/> (accessed 14 July 2022)

⁶⁹ Press Release of OceanaPH dated November 5, 2021: Scientists, fisherfolk, civil society groups raise alarm on destructive seabed quarrying, investigation, accountability sought <https://ph.oceana.org/press-releases/scientists-fisherfolk-civil-society-groups-raise-alarm-on-destructive-seabed-quarrying/> (accessed 14 July 2022)



have long proven that there is no science in the world that tells us that reclamation is good for the marine environment. On top of its environmental catastrophe, reclamation entails massive displacement of fisherfolks and coastal communities, threatening their livelihood and local fish supply.”⁷⁰ (Fernando Hicap, PAMALAKAYA)

3. Conduct benefit and cost analysis and comprehensive and integrative assessment of how offshore mining and seabed quarrying will affect the ecosystems. The assessment should cover: 1) the impacts (positive and negative); 2) quantification of those impacts across the project life; and 3) monetization of those impacts. (Dr. Rico Ancog, UPLB-SESAM)⁷¹

“There is a need to align the global best practices on mining activities, in terms of sustainability and minimize adverse impact on the environment. Increased international compliance with [environmental] standards by both international and local regulators in recent years would place more stringent environment standards, by carefully weighing the environmental damage or impact of those activities over the long-term compared to economic gains derived.” (Michael Ricafort, RCBC)⁷²

4. Legislate the following:

- 1 Bill prohibiting black sand / iron ore mining in the Philippines
- 2 Bill prohibiting seabed quarrying
- 3 Bill prohibiting the exportation of black sand and associated minerals

⁷⁰ Article by Inquirer dated August 5, 2022: Pamalakaya to DENR: Stop ‘destructive’ Manila Bay reclamation projects by Beatrice Pinlac <https://newsinfo.inquirer.net/1641622/pamalakaya-to-denr-stop-destructive-manila-bay-reclamation-projects#:~:text=Aside%20from%20the%20ecological%20consequences,good%20for%20the%20marine%20environment> (accessed 28 September 2022)

⁷¹ Article of UPLB-SESAM dated November 12, 2021: UPLB-SESAM joins the Oceana and NAST in a national colloquium on the impacts of seabed quarrying and ore mining <https://sesam.uplb.edu.ph/news/uplb-sesam-joins-the-oceana-and-nast-in-a-national-colloquium-on-the-impacts-of-seabed-quarrying-and-ore-mining/> (accessed 24 July 2022)

⁷² Article of Business World dated May 31, 2022: DENR imposes moratorium on new applications for seabed quarry permits by Luisa Maria Jacinta Jocson <https://www.bworldonline.com/top-stories/2022/05/31/451772/denr-imposes-moratorium-on-new-applications-for-seabed-quarry-permits/> (accessed 24 July 2022)

6 Critical Findings

1. Offshore ore mining, reclamation and seabed quarrying activities have grave socio-economic and cultural impacts on communities, and both the local and national economy. There is common agreement among scientists, academia, and various agencies including the BFAR of the Department of Agriculture, and the Biodiversity Management Bureau of the DENR, and affected communities that such operations should be halted and no new permits should be processed or issued.
2. An extensive benefit and cost analysis, as well as resource valuation, must be conducted to assess if such extractive activities should be allowed .
3. Evidence-based studies must be conducted to assess if the development aggressions in coastal and marine ecosystems in the country should still be legally allowed.
4. Legislations prohibiting black sand / iron ore mining in foreshore and offshore areas, reclamation and seabed quarrying must be enacted. At the minimum, protected areas and fishing zones must be declared as no-reclamation zones.

7 Additional references

Primer on Application For Exploration Permit (EP) <https://mgb.gov.ph/attachments/article/123/primerep.pdf> (accessed 26 July 2022)

Primer on the Application of Financial or Technical Assistance Agreement (FTAA) (n.d.) <https://mgb.gov.ph/attachments/article/123/primerftaa.pdf> (accessed 25 July 2022)

Primer on Application For Mineral Agreements (n.d.) <https://mgb.gov.ph/attachments/article/123/primerma.pdf> (accessed 25 July 2022)

Flowchart on Processing of Applications to Reclaim https://www.pea.gov.ph/images/pr_a_images/pdf/laws/QPF-PEV-01-Sept-2019_redacted.pdf (accessed 28 September 2022)





Alyansa Tigil Mina

The Council of Leaders performing an oversight function of ATM includes:

Maporac Aeta Organization (MAO)

**Sibuyanons Against Mining/Sibuyan Island
Sentinels League (SAM/Sibuyan ISLE)**

**Unahin Natin Lagi ang Diyos-Lske Farmers
Fisherfolk Association (UNLAD-BLFFA)**

Working Youth of Tubay

Convergence of Initiative for Environment Justice (CEIJ)

Ancestral Land/Domain Watch (ALDAW)

Carrascal, Cantilan, Madrid, Carmen, Lanuza (CARCANMADCARLAN)

**Legal Rights and Natural Resources Center – Kasama sa
Kalikasan (KSK) Friends of the Earth – Phils.**

LILAK (Purple Action for Indigenous Women’s Rights)

**Catholic Bishops’ Conference of the Philippines-National Secretariat for
Social Action, Justice and Peace, (CBCP-NASSA)-Caritas Philippines**

Alyansa ng mga Mamamayan para sa Kalikasan ng Kasibu (AMKKAS)

Environment Legal Assistance Center, Inc. (ELAC)

Ang Aroroy ay Alagaan (4A’s)

Tagbuyan Lakeshore Association

Partnership for Rural and Technical Services (PARTS, Inc.)

Alyansa Laban sa Mina sa Mindoro (ALAMIN)

Didipio Earth Saver’s Multi-Purpose Association (DESAMA)

Erumanen ne Menuvu Kamal

SANLAKAS

Task Force Detainees of the Philippines (TFDP)

**Aksyon sa Kahandaan sa Kalamidad at Klima (AKKMA)/
Philippine Support Service Agencies (PHILSSA)**



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