



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

MARKET RESEARCH ON SUSTAINABLE USE OF NATURAL RESOURCES IN THE PHILIPPINES (A study for Natureef)

I. Introduction

The Philippines is blessed with natural resources. It is conducive to agriculture having fertile, arable lands, diverse flora and fauna, extensive coastlines. Philippine government has desperately tried to restrict its exploitation.

Additional, the country has rich mineral deposits covering 30% of the land area of the country according to the Philippine Mines and Geo Sciences Bureau. A number of metals and mineral resources are found in Philippine soil. Metal deposits are estimated at 21.5 billion metric tons, while non-metal deposits are projected at 19.3 billion metric tons. Nickel ranks first while copper ranks second in terms of deposits and size. For non-metal deposits, the most abundant are cement, lime, and marble. Other non-metals include asbestos, clay, guano, asphalt, feldspar, sulfur, talc, silicon, phosphate, and marble.

Only in selected areas where “sustainable logging” is allowed but in most areas a log ban is. Almost half of the country’s total land area is forested. Half of the country’s total land area is forested of which sixty percent are found in Mindanao.

The country has several of natural water forms, such as bays, rivers, lakes falls, gulfs, straits, and swamps. The country's coastline measures around 17.5 thousand kilometers. The Philippines is endowed with natural harbors for ports like Manila Bay. Most popular among tourist is the famous underground river in Palawan. Apart from rivers, the country also has several lakes, notable among them are Laguna de Ba, Taal in Batangas and Bulusan in Bicol. Hydro power are generated from notable waterfalls such as Maria Cristina falls in Mindanao and Pagsanjan falls in Laguna.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

II. **Laws and regulations to the use of water, soil, forest, energy, and marine resources**

Regardless of nationality, investments are most welcome in the Philippines. Philippine laws and regulations guarantee the basic rights of all investors:

- Freedom from expropriation without just compensation
- Right to remit profits, capital gains, and dividends within the guidelines of the BSP (Central Bank of the Philippines)
- Right to repatriate proceeds of the liquidation of investments
- Right to obtain foreign exchange to meet principal and interest payments on foreign obligations (SGV, 2013).

A. **Laws Governing Foreign Investments:**

1. **1987 Philippine Constitution**

According to Article XII Section 2, it allows up to 40% of Foreign Equity in companies and enterprises that wish to explore, develop, and utilize natural resources in Philippine territory. It is possible for foreign-owned corporations to enter into an agreement with the president which would provide for technical or financial assistance for large-scale exploration, development, and utilization of mineral resources.

“All lands of the public domain, waters, minerals, coal, petroleum, and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildfire, flora and fauna, and other natural resources are owned by the State. The exploration, development, and utilization of natural resources shall be under the full control and supervision by the State. The State may enter an agreement with Filipino citizens, or corporations at least 60% per centum of whose capital is owned by Filipinos.”

Which means that foreign companies which would want to explore, develop, or utilize Philippine natural resources can only be allowed to operate when they have entered into an agreement with the State (represented by the president and can be done through the government agencies such as DENR)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

2. Foreign Investment Act 1991 (Republic Act 7042)

According to the Foreign Investment Act of 1991: An act to promote foreign investments, prescribe the procedure for registering enterprises doing business in the Philippines and/or for other purposes, there are no defined restrictions on the extent of foreign ownership of export enterprises. In domestic market enterprises, foreigners can invest as much as one hundred percent equity, with the exception of areas included in the negative list. In this case, negative list mean a list of areas of economic activity whose foreign ownership is limited to maximum of forty percent (40%) of the equity capital of the enterprises they are engaged in. There are two negative lists which states that foreign investments can be limited or restricted by the Constitution or specific laws. In Negative List A, foreign ownership in certain businesses is limited by a mandate of the constitution:

No Foreign Equity

- Small-scale Mining
- Utilization of marine resources in archipelagic waters, territorial sea, and exclusive economic zone as well as small-scale utilization of natural resources in rivers, lakes, bays, and lagoons (Art. XII, Sec. 2 of the Constitution).

Up to Forty Percent (40%) Foreign Equity

- Exploration, development, and utilization of natural resources

In regards to natural resources, the government must always have some control of the exploration, development, and utilization even if the individual or corporation engaged in the operation is Filipino. Moreover, foreign owned firms that are mainly catering to the local Philippine market are expected to follow through measures that will gradually increase Filipino participation in their firms or businesses, for example, by having Filipino board of directors, Filipino employees, and Filipino partners.

“As a general rule, there are no restrictions on extent of foreign ownership of export enterprises. In domestic market enterprises, foreigners can invest as much as one hundred percent equity except in areas included in the negative list.” (R.A. 7042, 1991)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

Furthermore, foreign investors are required a minimum capital of 200,000USD. However, foreign investors can invest less than 200,000USD provided first, if they are involved with advanced technology as determined by the Department of Science and Technology; or second, if they employ at least 50 direct employees, then the minimum capital is 100,000USD for foreign investors. This is a form of trade protectionism for the benefit small to medium scale local enterprises.

3. Omnibus Investments Code of 1987

The Code is implemented by the Board of Investments (BOI). This code provides a set of incentives for local and foreign companies and enterprises to engage in activities considered as high priority by the government. These high priority industries are: agriculture, forestry, mining, tourism and other sectors of the economy given that it can provide significant employment opportunities relative to the amount of the capital being invested. The operation should allow more productivity to the land, water and mineral resources of the country. Moreover, it shall also serve as a ground which will help improve the technical skills of its employees and give a foundation for future developments of the country's economy.

“The board will regulate the making of investments and the doing of business within the Philippines by foreigners or business organizations owned in whole or in part by foreigners.”

Moreover, it is also stated in this code that there would be a regulatory board that will regulate the investments and the doing of business in the Philippines by foreigners or business organizations fully owned or partially by foreigners. The Board of Investments will be the one responsible for the regulating of foreign investors in the Philippines. There shall be four governors in order to constitute a quorum, and the affirmative vote of four governors will be the action that will be executed by the Board. “Doing business” in the Philippines means soliciting orders, service contracts, opening offices, appointing representatives or distributors, operating under full control of the foreign corporation, and participating in the management.

For BOI to be able to extend incentives to qualified enterprise, the enterprise must engage in an area of activity listed in the current Investment Priorities Plan (IPP):

- Agricultural/Agribusiness and Fishery - this covers commercial production and processing of agricultural, herbal and fishery products, irrigation, post-harvest, cold storage, production of fertilizers and pesticides.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- Energy - development and utilization of indigenous energy sources and other energy sources adopting to environment-friendly technologies.
- Research and Development - establishment of research/ testing laboratories, Centers of Excellence (COE) and technical vocational education and training institutions.

4. Investor Lease Act

Foreign investors are allowed to lease private lands when investing in the Philippines provided that the period of the lease contract will not exceed 50 years. Once the contract expires, it can be renewed once for a period not exceeding 25 years.

“Under Section 4, Coverage - any foreign investor investing in the Philippines shall be allowed to lease private lands in accordance with the laws of the Republic of the Philippines subject to the following conditions:

1. No lease contract shall be for a period of exceeding fifty (50) years, renewable once for a period of not more than twenty-five (25) years;
2. The leased shall be used solely for the purpose of the investment upon the mutual agreement of the parties;
3. The leased premises shall comprise such area as many reasonably be required for the purpose of the investment subject however to the comprehensive Agrarian Reform Law and the Local government code.”

Moreover, under Section 2, it is in the policy of the State to encourage foreign investments consistent with the constitutional mandate to conserve and develop our own patrimony. The State can also adopt a flexible and dynamic policy about granting long-term lease on private lands to foreign investors. Foreign investors can lease private lands for the establishment of industrial estates, factories, agro-industrial plants, commercial use, tourism, and other productive endeavors. Lastly, under Section 5: Limitations, foreign individuals, corporations, associations, or partnerships not otherwise investing in the Philippines as defined herein shall continue to be covered by Presidential Decree No. 471 and other existing laws in lease of lands to foreigners.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

B. Laws and Regulations Affecting the Mining Industry

1. Philippine Mining Act of 1995

With regards to eligibility, the Philippine Mining Act of 1995: An act of instituting a new system of mineral resources exploration, development, utilization, and conservation, states that any institution which wishes to be an applicant for mineral agreements with the government shall be in the mining industry for any length of time, and that it should acquire a satisfactory environmental track record which is to be determined by the Mines and Geosciences Bureau and in consultation with the EMBD. When the institution is deemed to be qualified, it may enter into three modes of mineral agreement: exploration, development, and utilization of mineral resources.

In Chapter V Section 28, it provides the limitation of the area to be possessed by the “permitee” for Mineral Agreements. In the provision, it allows only 200 blocs onshore for partnerships and 500 blocs for offshore possession in the entire Philippines. However, it does not include mining/quarry areas under operating agreements between the contractor and a “permitee”.

Moreover, Chapter XI Section 69 of the Act, states that for environmental protection purposes, every contractor shall commence an environmental protection and enhancement program during the period of the mineral agreement.

“The work program shall include plans regarding rehabilitation, regeneration, revegetation and reforestation of mineralized areas, slope stabilization of mined-out and tailings covered areas, aquaculture, watershed development and water conservation.” (R.A. 7942, 1995)

Financial or Technical Assistance Agreement

In pursuance to the Philippine Mining Act of 1995, this agreement allows foreign investors to fully function on their own (100% foreign equity) when operating on large-scale development (for underground mining - operations producing 500,000MT and surface mining – operations producing 1,00,000MT per year) exploration, and commercial utilization of minerals. Moreover, this agreement states that the contractor shall be provided with the necessary technology, financing, and personnel in accordance with the provisions of the agreement that is in fulfillment with the arrangement done for by the Contractor.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

“WHEREAS, pursuant to Republic Act No. 7942, otherwise known as the Philippine Mining Act of 1995 which took effect on 09 April 1995, the President is authorized to execute and approve on behalf of the Government Financial or Technical Assistance Agreements to be entered into with qualified entities in furtherance of the objectives of the Government to encourage investments from both domestic and international sources for large-scale exploration, development and commercial utilization of mineral resources;”

C. Laws and Regulations Affecting the Fishing Industry

1. The Philippine Fisheries Code of 1998

According to Chapter I Section 5, the use and exploitation of the fishery and aquatic resources in Philippine waters shall be reserved exclusively to Filipinos. In regards to Commercial Fishing Vessels, it is provided in Article II Section 27 that commercial fishing vessel license shall be issued only to:

“Citizens of the Philippines, partnership or to associations, cooperatives or corporations duly registered in the Philippines at least sixty percent of which is owned by Filipino citizens.”

Furthermore, under Section 65 letter d: Functions of the Bureau of Fisheries and Aquatic Resources, the joint fishing agreements between Filipino citizens and foreigners who conduct fishing activities in international waters should be monitored and reviewed to ensure that there are no rules or treaties being undermined by both sides, when it comes to fishing in the high seas.

“Monitor and review joint fishing agreements between Filipino citizens and foreigners who conduct fishing activities in international waters, and ensure that such agreements are not contrary to Philippine commitment under international treaties and convention on fishing in the high seas.”

2. The Agriculture and Fisheries Modernization Act 1997

This provision aims for the global competitiveness and sustainability of agriculture and fisheries in the Philippines to become more enhanced through medium and long term plans. In Chapter II Section 15, in order to attain this goal, one of its main objectives is to increase in the number of international trading partners in agriculture and fishery products. Moreover, it aims for an increase in the number of farms



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

engaged in diversified farming and to reduce the use of agro-chemicals that are harmful to health and the environment.

Furthermore, under section 3: Statement of objectives, it states that the government should adopt policies that can promote industry dispersal and rural industrialization by providing incentives to local and foreign investors to establish industries that can be beneficial to local industries and also have linkages to the Philippine agriculture and fisheries resources. These policies can be promoted by providing incentives to both local and foreign investors

D. Laws and Regulations Affecting the Water industry:

1. The National Water Code of the Philippines 1976

With the concern to control, preserve, conserve and regulate the appropriation of water, any person and only citizens of the Philippines can and shall secure a water permit. Provided in Chapter III Article 15,

“Only citizens of the Philippines, of legal age, as well as juridical persons, who are duly qualified by law to exploit and develop water resources, may apply for water permits.” There are only two (2) appropriation wherein securing a water permit is unnecessary: “Appropriation of water by means of hand carried receptacles and bathing or washing, watering or dipping of domestic or farm animals, and navigation of watercraft or transportation of logs and other objects by flotation.”

2. Philippine Clean Water Act of 2004

In order to protect the country’s water bodies from land-based pollution, this law obliges institutions whether government-owned or privately-owned corporations to engage and promote environmental strategies within their companies in order to prevent and minimize pollution. Pursuant to this act, the owners are required to secure a discharge permit from the Laguna Lake Development Authority to be able to control the amount of wastewater being discharged to bodies of water.

Moreover, this law promotes the establishment of wastewater treatment facilities, and sewage collection integrated with treatment facilities and the adoption of water pollution control technology, cleaner production and waste minimization.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

E. Laws and Regulations on Environmental Conservation:

1. Presidential Decree No. 1586: Philippine Environmental Impact Statement System

This presidential decree requires national government, government-owned organizations, private corporations, firms or entities to prepare an Environmental Impact Statement (EIS) in every proposed project that will affect the environment. The EIS will help determine whether the project may cause negative impacts to the environment and give knowledge about the vulnerability of the natural resources in the project area. However, when an area is considered to be environmentally critical, the corporation is not allowed to operate unless they secure an Environmental Compliance Certificate. On the other hand, a company may not acquire an EIS if the location they want to operate in is considered to be not environmentally critical. This decision of declaring an area to be environmentally critical or noncritical is done by the President of the Philippines or by the National Environmental Protection Council.

2. Executive Order No. 247 (Regulatory Framework for Biological Resources)

This executive order requires that all companies and entities doing research through the physical collection and observation of living species must adhere to stringent regulations in order to maintain the balance and sustainability of the ecosystem. These companies and entities must also identify and respect cultural and indigenous traditions.

“WHEREAS, it is in the interest of the State’s conservation efforts to ensure that the research, collection, and use of species, genes and their products be regulated; and to identify and recognize the rights of indigenous cultural communities and other Philippine communities to their traditional knowledge and practices when this information is directly and indirectly put to commercial use;”

3. The Coral Resources Development and Conservation Decree

This decree provides that any forms of “gathering, harvesting, collecting, transporting, possession, sale and/or exporting of ordinary corals either in raw or processed form in any quantity is prohibited.” Moreover, exportation of precious and semi-precious corals is prohibited unless these corals are processed and manufactured within the territory of the Philippines. The only exception in exploration, exploitation, and utilization of corals is if it is for experimental collection or educational purposes. However, this special



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

permit may only be given to a Filipino citizen or a company in which its foreign equity is only at 30%.

“WHEREAS, it is necessary that the exploration, exploitation, utilization and conservation of these resources be properly regulated to ensure the preservation of the country’s marine environment”

Challenges:

Adhering to the strict laws and regulations regarding environmental health and conservation may pose some challenges for companies; this may be challenging in the sense that companies might have to adopt new techniques and processes especially with identifying with local indigenous groups who may have extremely different customs from western norms.

- a. The Philippines have regulations on foreign investors and promotes Filipino-first policies. For example, in the Foreign investment act of 1991, it states that the Philippines does promote foreign investors but they are limited to 40% equity, and the company should have Filipino citizens as part of their board of directors, management, and staff.
- b. Foreign companies who would want to explore, develop, or utilize Philippine natural resources can only be allowed to operate when they have entered into an agreement with the State (represented by the president and can be done through the government agencies such as DENR)
- c. Inalienable natural resources are all state-owned.
- d. If a foreign company intends to do business in the Philippines by incorporating a Philippine company, the foreign corporation must first secure the approval of the SEC by filing its incorporation papers, together with authenticated copies of its foreign charter and by-laws.



19F Philippine AXA Life Centre
 Sen. Gil Puyat Ave., cor. Tindalo St.
 Makati City, Metro Manila, 1200 Philippines
 Tel. Nos.: (63 2) 845 1324; 759 6680
 Fax Nos.: (63 2) 845 1395; 759 6690
 Email: info@eccp.com
 Website: www.eccp.com

CHALLENGES	OPPORTUNITIES
The presence of strict local laws regarding the environment and the protection of local species and indigenous groups.	Compliance will lead to better local environmental health and may foster valuable indigenous cooperation.
The difference between western customs and local tradition may be a hindrance in terms of negotiation and execution of plans.	Adjustment to local traditions may be mutually beneficial to both the indigenous group and the foreign entity.
A foreign company may only lease land from the Philippines and under no circumstances, are allowed to own it. (Jus Soli)	The Investor's Lease Act provides that a company may loan land for a term of 50 years and may renew for another term not exceeding 25 years.
Inevitability of accidents that may cause grave environmental harm and destruction to local flora and fauna.	Giving assurance that any processes of the foreign company will cause no damage to the local environment.
Foreign investors are only allowed to invest if they joint ventures with a fully-owned Filipino company.	Developing economic strategies and partnerships that is appropriate and accustomed for local consumers.
A foreign corporation must first secure a "License to do business in the Philippines" from SEC	Foreign Investors are allowed to invest in large-scale mining projects up to 100% foreign ownership under the FTAA.

III. Stakeholders involved in the utilization of the natural resources from government, business, community, and international organizations

A. Philippine companies and organizations

Water

1. Waters Philippines

- Maynilad Water Services, Inc.

Maynilad, an agent and contractor of the Metropolitan Waterworks and Sewerage System (MWSS), provides water and wastewater services for the 17 cities and municipalities on the West Zone of Metropolitan Manila. It is required by the Philippine Government to increase its wastewater investments. ("Maynilad," n.d.)

Contact Person: Mr. Ramoncito Fernandez – President



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- Manila Water Company, Inc.

Manila Water provides water and wastewater services to the East Zone of Metro Manila which compasses 23 cities and municipalities. They hold this exclusive right under a Concession Agreement (CA). They company also has four operating subsidiaries namely Laguna AAWater Corporation (Laguna Water), Boracay Island Water Company (Boracay Water), Clark Water Corporation (Clark Water), and Manila Water Consortium in Cebu.

Contact Person: Chairman, Executive Committee: Fernando Zobel de Ayala

Renewable resources

- Solar NRG Philippines

SolarNRG Philippines can help to reduce electricity bills. This company is all about giving power to the people. From small residential projects to large scale industrial setups, they are committed to providing the best solar solutions in the nation. With their solar panels, the person will be more comfortable looking at the electricity bill in no time. The parent company is SolarNRG Netherlands, one of the largest solar companies in the Netherlands. (S. Philippines et al., 2015)

Contact Person: Marco van Veen, President

- CEnAG Solar:

CEnAG Solar is a German-Filipino engineering company who design and construct solar Photovoltaic systems: Grid Connected Systems, Off-grid with Battery and Hybrid. These systems let everyone to produce their own power and are suitable for urban areas. They integrate solar thermal technology for water heating which helps lessen energy costs. They offer solar refrigerators and freezers which make storing medicines and vaccines possible in remote areas. (CEnAG Solar, 2015)

Contact Person: Holger Schenk

- Orion Group International, Inc.

Orion Group was established in the Philippines in 2012. It is an Engineering, Procurement, and Construction Management company that focuses on renewable



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

energy. The company provides free comprehensive energy consultation to deliver their services on energy. (“OrionGroup International,” n.d.)

Contact Person: Engr. Rynor G. Jamandre, President

- Edward Marcs Phils Inc:

EMPI represented tower manufacturers by connecting power generation to power distribution. These tower manufacturers can supply transmission line projects by International Funding Institutions like ADB, World Bank, and Japan Export/Import Bank. They expanded to be a distributor of solar water heaters and evacuated heat-pipe solar water heating system. They are also involved in several electric-related projects with the help of DOE and other government agencies. Recently, they produced solar-assisted air-conditioner which saves a lot of energy for power consumers. (Edward Marcs Phils Inc, n.d.)

Contact Person: Felix Richard A. Cordova

Mining

- OCS Silica Island Mining

A company with a major play of rule in selling & marketing of silica materials, “Silica quartz & Silica sand“ OCS Silica Inc. is the first company to conceived as an option to mitigate the threat of mining squabbles among concerned parties over business and environmental issues while at the same promoting industry growth particularly in Silica Quartz market such as glass production and any other Silica component processing industries. OCS Silica Inc. has entered into agreement with American Alliance Financial & Funding Group (AAFFG) with the manager/owner of American Alliance Card (AAC), a foreign supplier and investor for Silica Quartz . In Effect, OCS Silica Inc. extends hands with AAFFG to serve the Philippine market through the importation, distribution, and or processing of Silica Quartz.

- The Chamber of Mines of the Philippines

The Chamber of Mines of the Philippines is an association of individuals and corporations engaged in mining, quarrying, and processing, extraction or smelting of minerals who are committed to the exploration, development, and utilization of



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

minerals compatible with sound economic, environmental, and social policies.
(websitename, 2011)

Contact Person: Artemio F. Disini - Chairman

Agricultural and forest

- VJ Ricemill

The VJ Ricemill is concerned on rice milling, wholesale rice trading and supplying rice to various international companies and government institution. It supplies foodservice, retail, private label and industrial sectors in rice industry. (“VJ rice mill,” 2011)

Contact Person: Owner: Vidal Eizzak Querol Jr.

- Victorias Milling Company, Inc.

The VMC is one of the largest sugar operations in the world, grinding capacity of 1,500 tons of sugarcane daily. Founded on 1919, the company has diversified into the areas of food processing, leisure, real estate, and energy generation. (“Victorias Milling Company, Inc,” n.d.)

Contact Person: Executive Committee: Wilson T. Young

- Lamsan Inc.

Lamsan Incorporated is the leading manufacturer of corn products such as cornstarch, corn gluten feed, corn gluten meal and corn germ in the country. It has lead the utilization of proper treatment of waste water to produce biogas for power generation. (“Lamsan Incorporated,” n.d.)

- Philippine Society of Agricultural Engineers (PSAE): organization

The PSAE is a society of agricultural engineers aiming to exploit their professional practice for agriculture and fisheries development and modernization. They are accredited to conduct researches and operation on tasks related to the field of agriculture engineering. (PSAE, n.d.)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

Contact Person: Ms. Lorielei Ara P. Manocsoc - Executive Secretary

- Geological Society of the Philippines (GSP): organization

The GSP is the only accredited professional organization for geology professionals by the Professional Regulations Commission of the Philippines. The Society aims to promote the study of and creating scientific researches related to geology and allied earth sciences and maintain ethical standard in the practice of geology. They also aspire to propagate the knowledge of the geology of the Philippines and the states surrounding it. (Geological society of the Philippines, 2017)

Contact Person: Che Llamera

B. Foreign companies and organizations

Water

- Calapan Ventures Corp.

They operate and manage the waterway system in Calapan City, Oriental Mindoro and is engaged in the developing and utilizing water resources to produce and supply water for all types of purposes.

Email: info@h2o.ph

- Seimens (Subic Water & Sewerage Company Inc.)

Subic Water and Sewerage Co., Inc. contracted Siemens Water Technologies to rehabilitate its decades-old Binictican Sewage Treatment Plant in order to serve thriving communities in Subic.

Email: support@subicwater.ph

- SGS Philippines

Water treatment solutions, treatment of Acid Rock Drainage, and heavy metal contaminated water. They focus on developing a sustainable water management plan. Provide effective mitigating strategies that may reduce the environmental impact.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- **GHD**

One of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. GHD is at the forefront of the water industry, delivering sustainable water solutions across the globe, covering every element of the water cycle for urban, rural and industrial water applications.

Renewable resources

1. **SMA Solar Technology AG**

SMA specializes in photovoltaic system technology. Their innovative photovoltaic applications enable their customers reduce the energy costs with favorable solar power. They are improving their diesel engines with the SMA Fuel Save Solution to be PV diesel hybrid systems and to help the reduction of CO₂ emissions. (AG, 2012)

Contact Person: Dipl.-Phys. Matthias Hermes - Deputy Director, Sales New Markets

2. **Vattenfall**

Vattenfall is one of the largest generators of electricity in Europe and is owned by Swedish state. They produce and distribute electricity and heat from the energy sources such as wind, hydro, biomass, solar, nuclear, coal and gas. They operate energy trading. (Vattenfall, 2013)

Agricultural and forest

- **Conversational Organization (CI) Philippines**

The CIPhilippines works with the government and local communities for the protection of healthy ecosystems since 1995. They protect nature through science, policy and fieldwork. They also provide solutions to environmental issues like loss of mangroves, deforestation, climate change and illegal wildlife trade.

- **Asian Farmers' Association For Sustainable Rural Development**

(Pambansang Kilusan ng mga Magsasaka (PAKISAMA)) PAKISAMA is a national confederation and movement towards the empowerment of small farmers, rural women, youth and indigenous people. They render services to its 54 member



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

organizations in 45 provinces through programs like Membership and Gender Development, Sustainable Agriculture and Aquatic Development, Resource Building and Livelihood Development;

IV. Possible collaboration in research and innovation and possible sources of local or international grants

A. Possible International Company for Research and Development

1. Granja Agas

Granja Agas is a farming business that specializes in producing excellent quality eggs, both chicken and quail. It is currently engaged in a Community-Directed Treatment with Ivermectin (CDTI) Project which improves the production and health of laying hens. It collaborates with a University to improve the production and health of Quail eggs. Its specialty is to make use of barley and sunflowers to produce feeds for hen. (Granja Agas SA, 2016)

B. Possible International Organizations for Research and Development:

1. Food and Agriculture Organization

The Food and Agriculture Organization (FAO) is a sector under the United Nations that works towards different goals pertaining to food security and world hunger eradication. The European Union partnered up with FAO in 1991, and started their technical cooperation in 1993. (FAO, 2016)

2. European Conservation Agriculture Federation (ECAAF)

ECAAF is a non-profit making international organization subjected to Belgian laws. This organization already has fourteen (14) national associations in which are promoting soil management for Conservation Agriculture. ECAAF aims to conserve and is concerned with sustainable agriculture, specifically with regard to agrarian soil and its biodiversity. (ECAAF, n.d.)

Contact details: Prof. Dr. Gottlieb Basch - President



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

3. Landing Aquaculture

Landing Aquaculture is an international engineering and consultancy that is centralized in aquaculture. They are also connected to a network of companies, professionals, and researchers.

Contact details: Rob Landing

4. AquaBioTech Group

Aquabiotech Group is an international consulting company that deals with providing services concerning Aquaculture, fisheries, marine surveying, aquarium and aquatic environmental projects. Furthermore, the company has been conducting different EU Projects such as Aqua-tnet, and ENVIGUARD. Their recent EU Projects are: Aqua-tnet, which is largest multidisciplinary European Education Network in the field of aquaculture, fisheries and aquatic resources management. (AquaBioTech Group, 2016)

Contact details: Malta G.C.

C. Possible Philippine Government and Academic Institutions for Research and Development:

Government agencies and research institutions

1. Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD)

PCAARRD is one of the sectoral council under Department of Science and Technology (DOST) which formulates policies and programs for technology-based research and development and coordinates and monitors research development processes in agriculture, aquatic and natural resources. They conduct research and development in areas like natural resources sustainability and environment fertility, agricultural inputs and support services, crops, livestock, forestry and environment and agricultural resources management.

They will be conducting research on the enhancement of nutrient and water use efficiency through standardization of engineering support systems for precision farming on February 2017. (PCAARRD, n.d)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

2. Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)

Like PCAARRD, PCIEERD is a sectoral council under DOST as well. They harness the country's science and technology by providing support to research and development. They conduct research in areas such as energy like bio-fuels/alternative fuels, renewable energy, energy efficiency and conservation and emerging technologies like biotechnology applications, genomics, new materials /nanotechnology, information and communications technology.

They have an on-going research project which aims to develop a rapid charging station for e-vehicles which can charge less than 30 minutes. (PCIEERD, n.d)

3. Department of Energy

Department of Energy conducts research and development as well as generate appropriate technologies to improve the quality of life of the Filipino with stable, sustainable, sufficient and reasonably-priced energy. Some of their projects include the generation of renewable energy power plant such as bagasse-fired cogeneration, rice husked-fired, coconut waste-fired, wood chip-fired, and napier grass-fired biomass power plant and other source of renewable energy such as Mt. Malindig and Mt. Parker geothermal power project, CAR hydropower projects (Benguet, Apayao, Catanduanes, Abra, Kalinga, Apayao, Ifugao), ocean energy project in Luzon (Maqueda Channel and Catanduanes) and Visayas (Dalupiri Pass and Northern Samar) and Luzon solar energy project. (Department of Energy, n.d.)

Contact Details: Sec. Alfonso G. Cusi, Secretary

4. Forest Products Research and Development Institute (FPRDI)

FPRDI was established to conduct research and development and generate and improve technologies in response to the need of forest-based industries in the country. FPRDI conducted research projects for the development of appropriate technologies for forest-based industries like determination of the relative resistance or susceptibility of wood wool cement bonded board against insect and fungal attack and maintenance and upgrading of herbarium and xylarium and determination of natural decay resistance of forest woody vines to bio-deteriorating agents. (Department of Science and Technology, n.d.)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

Contact Details: Romulo T. Aggangan, Director

5. Fertilizer and Pesticide Authority (FPA)

FPA assure quality fertilizers and pesticides for use. They handle the issuance of licenses, product quality, product registration for both pesticide and fertilizers, and the institutionalizing of the Product Stewardship Program. They conduct research and development to improve the food production and income of the Filipino farmers through quality fertilizers and pesticides. (Fertilizer and Pesticide Authority, n.d.)

6. National Agricultural and Fishery Council (NAFC)

NAFC is a sectoral council under Department of Agriculture that formulate policies and programs for sustainable agricultural and fishery development. They facilitate private-public sector consultations and dialogues in agriculture and fisheries.

One of the projects of NAFC is the PL480 which is also known as the Livelihood Enhancement for Agricultural Development (LEAD). This project accelerates the Genetic Resource Improvement Program for beef cattle and small ruminants and strengthens the Livestock Biotechnology Center and the capabilities in agricultural and fishery policy and trade negotiations. (National Agricultural and Fishery Council, n.d.)

7. Bureau of Fisheries and Aquatic Resources

BFAR is responsible for the improvement and conservation of fisheries and aquatic resources. They handle the issuance of licenses, permits and IDs for the operation of commercial fishing vessels. They implement inspection system for import and export as well as a comprehensive fishery research and development program. One of its project is the construction of aquaculture such as fish cage, fishpen, fish hatchery, fish pond and fish farming. (National Agricultural and Fishery Council, n.d)

8. Southeast Asian Fisheries Development Center

They conduct research, develop technologies, spread information and train fishermen in the farming of fisheries for food, livelihood and sustainable development. They are developing an environment-friendly aquaculture resources, sustainable utilization and management of fisheries and aquatic resources. (SEAFDEC Philippines, n.d)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

9. Department of Environment and Natural Resources

DENR assures the availability and sustainability of natural resources of the Philippines through proper use, conservation and restoration. They handle the increase of natural resources to meet the demand of country's growing population as well as the licensing and regulation of all the natural resources. They are currently working on the National Greening Program which is a massive forest rehabilitation program. (Department of Environment and Natural Resources, n.d)

10. Livestock Development Council

LDC is a sectoral council under Department of Agriculture that is involved in enriching the livestock industry in the Philippines. They are in charge of having resolutions and regulations for the raising of livestock and poultry. They work with meat inspectors and sanitation officers to ensure that the meat distributed and sold in the market are safe for human consumption. (Livestock Development Council, n.d.)

Contact Details: Manuel R. Jarmin, Acting Executive Director

11. Bureau of Animal Industry

BAI implement policies, programs, research and services on animal production, post-harvest, health and welfare to make the animal industry productive and profitable under sustainable environment. Some of its activities/projects are the Establishment of Pilot Biogas Digester Unit, Laboratory Testing/Analysis for Animal Disease Diagnosis, and Distribution of Frozen Semen for the Unified National Artificial Insemination Program (Bureau of Animal Industry, 2016).

Contact Details: Dr. Enrico P. Garzon, Jr., Director

12. Philippine Institute for Development Studies

Philippine Institute for Development Studies develops and implements comprehensive and integrated research program that will provide the research materials and studies required for the formulation of national development plans and policies. They are currently handling the Evaluation of the Impacts of Government Water Supply and Sanitation (WSS) Programs. (PIDS, 2016)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

13. Mines and Geosciences Bureau

Mines and Geosciences Bureau promotes sustainable mineral resources development, aware of its contribution to national economic growth and countryside community development. Some of their studies are the Recovery of Nickel From Low Grade Philippine Laterite Ores By Agitated Atmospheric Leaching by Engr. Chris G. Arnejo, Engr. Carina V. Pecson and Engr. Rey V. Perucho, and the Trace metal speciation: Assessing the mobility of metals in mine impacted marine sediments by Dahlia C. Apodaca, Charo T. Balgua-Ocampo, Gina Flor C. Frankera-Resubal and Edita Malacad. (“First ever: Current and past MGB directors together,” 2016)

Academic Institutes and International Research Organizations

1. University of the Philippines- Los Baños

University of the Philippines-Los Baños, Laguna conducts researches in the field of the development of seed production and larval rearing of Ayungin (*Leiopotherapon plumbeus*) and Biyang Puti (*Glossogobius giuris*) for use in aquaculture by Pablo Ocampo and the utilization of biocompatible nanomaterials for the smart delivery of N fertilizer and bioactive compounds by Lilia Fernando. website: <http://uplb.edu.ph/>

2. De La Salle University

De La Salle University has a research center known as Br. Alfred Shields FSC Ocean Research (SHORE) Center which focuses on marine resources. Website: <http://www.dlsu.edu.ph/>

3. University of Sto. Tomas

University of Sto. Tomas conduct research and development in areas like pure and applied microbiology, biodiversity and environmental science. Website: <http://www.ust.edu.ph/>

4. Polytechnic University of the Philippines

Polytechnic University of the Philippines has Center for Life Sciences Research which conduct research and development in the different field of biological sciences like botany, zoology, microbiology and other allied life sciences. Website: www.pup.edu.ph



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

5. Technological University of the Philippines

Technological University of the Philippines conducts research and development in areas such as agriculture, energy and mineral. Some of the researches include the Automation and Mechanization for Industrial and Agricultural Productivity, Development of Alternative Energy Technologies and Development of Technologies for the Metal Industry. Website: www.tup.edu.ph

6. Arellano University

Arellano University conducted research in the area of biology like the Isolation and Determination of Biore Mediation Potential of Polyethylene Degrading Microorganisms from Mangrove Sediments of Manila Bay Coastal Areas by Eduardo M. Lorico, D.V.M. Website: www.arellano.edu.ph

7. International Rice Research Institute (IRRI)

IRRI is an international agriculture research and training organization with headquarters in Los Baños, Laguna. IRRI conduct research and development to improve the health of rice farmers and consumers, and ensure environmental sustainability of rice farming. One of their project is the C4 Rice Project that involves the developing of innovative ways for rice to use solar energy more efficiently in photosynthesis. Website: <http://irri.org/>

8. Marine Science Institute- University of the Philippines

Marine Science Institute of UP generates information for understanding the marine and coastal environment, and plans for their conservation and sustainable use. Website: <http://www.msi.upd.edu.ph/research>

9. Coastal Renewable Energy Technology Center

CRETTC provides education as well as skill development in renewable energy. They are looking for potential and viable wind and solar sites in the whole country to be developed as future wind farm. Website: <http://www.coastalrenewables.com/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

Possibilities of Philippine Government Aid:

1. Natural Resources Development Corporation (NRDC)

It is ordered to promote investments in natural resourced-based industries by providing financial, technical and management assistance. According to Executive Order No. 786 some of the powers of the NRDC are as follows:

- a. They can enter into any lawful arrangement for sharing profits, joint ventures, union, interests, or cooperation with any association, partnership, entity located in or organized the laws of any authority in any part of the world as may be necessary to carry out its operations.
- b. Obtain funds to support or carry out their objectives and purposes, and to invest idle funds or income derived from marketing, contributions, in any authorized government depository banks.
- c. They guarantee domestic or foreign loans and other forms of indebtedness both as to principal and interest issued by their own company or by any duly incorporated companies engaged in the business of developing, producing and marketing natural resources-based products (E.O. No. 786, n.d.)

2. Philippine Export Zone Authority

A Philippine Government Agency attached to DTI that is tasked to promote investments and assistance, and grant incentives to and facilitate the business operations of investors in export-oriented manufacturing and service facilities inside selected areas throughout the country. It provides incentives to developers or operators of and locators in world-class and secured Special Economic Zones. (Philippine Economic Zone Authority, n.d.)

Possibilities of European Aid:

1. European Commission

EU funding is accessible to public sectors and some private sectors, specifically the SME's. The funds also apply to students, NGO's and voluntary organizations. (European Commission, n.d.)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

2. Cosme Fund:

Cosme Fund guarantees small to medium enterprises for up to 150,000 Euros travel and accommodation fees.

3. EIB (European Investment Bank)

EIB promotes sustainable growth and job creation by supporting small businesses, backing innovation and skills, investing in infrastructure and financing essential environmental and climate friendly projects. (European Investment Bank, n.d.)

V. Business opportunities / possibilities of creating linkages with Natureef

A. Soil

1. Yara Fertilizers Philippines Incorporated

Yara offers complete portfolio of offerings such as Crop Nutrition Solutions, Nitrogen Application Solutions and Environmental Solutions that can help improve the product's quality and reduce the environmental impact of agricultural practices. They also sell products like Ammonia, Urea, Single superphosphate (SSP), Nitric Acid, Nitrates, NPK, Calcium Nitrate (CN), Technical Ammonium Nitrate (TAN). (Yara International, 2016)
Website: <http://yara.com/>

2. Absolut Distillers

They produce world-class quality alcohol. They manufacture, distill, import, export, buy, and sell chemicals like alcohol and molasses that they turn into a by-product distillery slop that contains amount of organic material, nitrogen, phosphorus and other minerals that make it a good fertilizer material. (Absolut Distillers, Inc., n.d.)
Website: <http://absolutdistillersinc.com/>

3. Agchem Manufacturer Corp

They develop, formulate, pack and deliver crop protection chemicals such as herbicide, insecticide, molluscicide, fungicide, plant growth regulator and other related products that can help increase the productivity of Filipino farmers and contribute to the development of Philippine Agriculture. (CPAP, Inc., 2012)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

4. Atlas Fertilizer Corp

They manufacture and sell a complete line of mixed fertilizer grades such as inorganic fertilizer, (Nitrogen, Phosphorus, Potassium) NP-NPK-NK fertilizers). They also offer imported fertilizer products internationally. (Atlas Fertilizer Corporation, 2016)

Website: <http://www.atlasfertilizer.com/>

5. BASF

The company specializes in chemicals, performance products, functional materials and solutions, agricultural solutions, oil and gas. They manufacture fungicides, insecticides, herbicides and seed treatments. (BASF SE, 2016) Website:

<https://www.basf.com/ph/en.html>

6. La Filipina - Uy Gongco

They trade agricultural products nationwide. They are also involved in the distribution of various grades of fertilizers and agricultural solutions such as herbicides, insecticides, fungicides, and molluscicides. (La Filipina, n.d.) Website: <http://www.lafilgroup.com/>

7. Modern Time Enterprises Inc.

They import and trade best quality fertilizers at the most affordable prices and distribute to banana plantations and dealers locally. (Davao City Chamber of Commerce and Industry Inc., 2015)

8. Philippine Phosphate Fertilizer Corp

They manufacture and distribute agricultural fertilizer. They also produce phosphatic fertilizer and sells the product through wholesalers and retailers in different countries in Asia like Vietnam, Thailand and Indonesia. (DKL Engineering, Inc., 2011)

Website: <http://www.philphos.com.ph/>

9. Sagrex Corp

They trade and export rice and corn, coffee, copra and other agricultural products. They also distribute GROW MORE NPK Premium foliar fertilizers and Liquid natural organic micronutrient chelates. (Sagrex Corp, n.d.) Website: <http://www.sagrex.com/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

10. VAST Agro

They distribute different range of pesticide products and high quality fertilizers to different regions of Luzon. (Vast Agro Solutions Inc, n.d.)

B. Water

1. Philippine Center for Water and Sanitation

PCWS provides demonstration projects to housing technologies and technical assistance to LGUs, NGOs, and other communities on water supply, sanitation and health (Philippine Center for Water and Sanitation, n.d.) Website: <http://www.itnphil.org.ph/>

2. National Water Resources Board

NWRB serves as the policy-making body for the water supply in the Philippines, providing water resource development activities, collecting data and investigating hosted projects, promoting social studies in the water sector of the country (National Water Resources Board, n.d.) Website: <http://www.nwrp.gov.ph/>

3. Balibago Waterworks System, Inc.

Balibago is acquiring, establishing, developing and managing operations of waterworks utility system in franchise area (BWSI Group of Companies, n.d.) Website: <http://bws.com.ph/>

4. Mtec Water Treatment Technologies, Inc.

Mtec provides water treatment services through system design, maintenance services, regeneration, chemical cleaning, programming (Mtec Water Treatment Technologies, Inc., n.d.) Website: <http://mtec.powersites.ph/>

5. Green Innovations Wastewater Treatment Philippines

Providing solutions for water conservation, treatment and reuse for the protection and enhancement of the environment (Green Innovations, 2012) Website: <http://greeninnovations.com.ph/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

6. Mystic Water Philippines

Providing water treatment services, equipment and system like gas chlorination & disinfection system, purification system, filtration system, water softening system & water instrumentation and laboratory supplies (Mystic Water Philippines, 2012)

Website: <http://www.mysticwaterphil.com/>

7. Global Supply Solutions Corporation

Global offers services to provide clean water like water filtration for safety and sanitation (Global Supply Solutions, 2016) Website: <http://www.gsupplysolutions.net/>

8. Megatech Resources Corporation

Designing, manufacturing and serving water treatment equipment like water softeners, demineralizers, dealkalizers, iron removal filters, sand filters, activated carbon filters and other metal fabrication works (Megatech Multi Resources Corp, 2007) Website:

<http://megatech-multi.com/Profile.htm>

9. SDIC Environmental Technologies

SDIC provides full service of environmental engineering turning contaminants from wastewater to treated effluent for discharge or reuse (SDIC Environmental Technologies, 2016) Website: <http://www.sdic.com.ph/>

10. Aqua Treatment Technology Corporation

Aqua Treatment provides water treatment solutions to all problems, manages advanced wastewater treatments plants and deploying products and services in widely diverse fields of operation. (Aqua Treatment Technology Corporation Philippines, 2016)

Website: <http://www.aquatreat.com.ph/>

11. VA TECH WABAG (PHILIPPINES) INC.

VA Tech operates drinking water and wastewater plants for both the municipal and industrial sectors (VA Tech Wabag Philippines, Inc., n.d.) Website:

<http://www.wabag.com>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

12. BAUER International Phils., Inc.

Bauer designs and does engineering for water and wastewater systems; offering consulting services such as system design, audit, rehabilitation and modernization (BAUER International (Phils Inc., n.d.) Website: <http://www.bauerphils.com.ph/>

13. Watercorp Technologies, Inc. - Wastewater Treatment

Watercorp provides cleaning technologies for environmental protection such as biological wastewater treatment and cryogenic blast cleaning (Watercorp Technologies, Inc., 2016) Website: <http://watercorptech.com/>

14. Philippine Water Works Association Incorporated

PWWA is a group of government and private agencies and individuals in water supply development providing safe, adequate and affordable drinking water and information (Philippine Water Works Association, Inc., 2015) Website: <http://www.pwwa.org.ph/>

C. Renewable energy resources:

1. CENAG Solar (Impact Group Inc)

Cenag designs and builds solar Photovoltaic systems that enable people to generate their own power. They also help reduce energy costs by integrating solar thermal technology for water heating. (CENAG Solar, n.d.) Website: <http://cenag-solar.com/>

2. Maschinen & Technik, Inc.

Matec specializes in the fields of power generation, transmission, distribution and application, and of industrial manufacturing, transportation and communication. They manufacture equipments in hydro, wind and solar energy. (Maschinen, 2013) Website: <http://www.matec.com.ph/>

3. First Gen

First Gen specializes in the fields of power generation, power distribution, infrastructure, manufacturing and property development. They develop natural gas, hydro, geothermal, wind and solar power plants. (Gen, 2016) Website: <http://www.firstgen.com.ph/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@ecccp.com
Website: www.eccp.com

4. Alternergy Wind One Corporation

Alternergy provides alternate energy services. They generate electricity through renewable sources of energy. They develop and operate wind farms in Singapore and Philippines. (Welcome to Alternergy, 2011) Website: <http://www.alternergy.com/vm.php>

5. Poseidon Renewable Energy Corp

Poseidon is engaged in project management in in-stream energy for the ocean renewable energy industry through mapping and measurement for data collection, assessment on the feasibility, and planning the installations. (poseidonenergycorp, 2016) Website: <http://poseidonenergycorp.com/>

6. SolarSolutions

They deliver products and services on solar energy. They also provide research and development services and technical advice on the design and deployment of renewable energy products. (Inc & Reserved, n.d.) Website: <http://www.solarsolutions.ph/>

7. UPC Renewables

UPC develops, builds, owns and operates their own wind and solar farms/projects. They use wind turbine technology in supplying renewable energy at the best price possible. (UPC Renewables, n.d.) Website: <http://www.upcrenewables.com/>

8. Solaric Philippines

They provide sustainable energy systems and energy conservation devices and appliances that help in reducing power bill and are affordable. They also provide installation services. (Solaric Turn On The Sun, n.d.) Website: <http://www.solaric.com.ph/>

9. H&WB Corporation

H&WB promotes, develops, finances, constructs, owns, operates, and maintains plants and systems to generate energy from fossil and renewable energy resources. (H&WB Asia Pacific (PTE LTD) Corporation, n.d.) Website: <http://hwbasiapacific.net/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

10. PhilCarbon

Phil Carbon provides services for projects and evaluation for renewable energy sources for biomass, wind, and solar power generation development. (PhilCarbon Green Energy Clean Power, n.d.) Website: <http://www.philcarbon.com/>

11. Green Power Panay Philippines Inc.

GPPPI delivers biomass-based electricity to the island of Panay in the Philippines. They construct and operate their own biomass power plants. Their specialties are renewable energy, biomass, decentralized energy and climate change mitigation. (Green Power Panay Philippines Inc., n.d.) Website: <http://www.green-power-panay.com/>

12. MacKay Green Energy

MacKay develops renewable energy systems for the converting of biomass and waste to energy and fuels. (Mackay Green Energy Inc., n.d.) Website: <http://www.mackaygreenenergy.ph/old%20website/>

13. Trans-Asia Renewable Energy Corporation

Trans Asia operates power generation plants for electric supply, renewable energy, and resource exploration and development. (PHINMA Energy, n.d.) Website: <http://www.transasia-energy.com/ta/>

14. Global Green Power PLC Corporation

GGPC develops, constructs, and operates biomass fueled renewable energy power plants that embrace the global paradigm shift towards the development and use of clean and cost effective renewable energy in the form of electricity. (de Montaigne, 2015) Website: <http://www.global-green-power.com/>

15. Isabela Biomass Energy Corporation

Isabela Biomass generates, sells and supplies electricity through the development and utilization of alternative/renewable sources of energy and technologies. (IBEC, 2014) Website: <http://ibec.ph/>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

16. Equator Energy Corporation

Equator Energy designs, supplies, installs and maintains alternative energy systems in Solar and Wind from industrial, commercial and residential. They also provide services in all applications. (Equator Energy Corporation, n.d.) Website:

<http://equatorenergypinoy.com.ph/>

17. Ecosolar Industries

Ecosolar Industries Corporation provides photovoltaic (PV) system for residential and commercial as well as agricultural and industrial buildings. (Ecosolar Industries, n.d.)

Website: <http://ecosolarphil.com/>

18. Optimus Energy

Optimus Energy is the leading wholesaler and distributor of solar modules, grid tie inverters, solar mounting systems and many more. (Optimus Energy, n.d.)

Website: <http://optimusenergy.ph/>

19. Aseagas

Aseagas develops power from biomass waste and producing green energy utilizing waste that would otherwise be left to pollute the environment. (Aseagas, n.d.)

Website: <http://www.aseagas.com/>

VI. List of trade fairs and conferences

A. Water

1. WATER PHILIPPINES EXPO

International Trade Show for Water Sanitation, Industrial Wastewater Treatment & Purification. This trade show showcases the latest advancement in water technology. Professionals from the water industry and government officials come together to build their network and to provide new business opportunities. (Water, 2016)

- a. SMX Exhibition and Convention Center
- b. 22.03 - 24.03 2017
- c. Organizer: UBM Exhibitions Philippines, Inc.



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- d. Email: info@ubmphilippines.com
- e. Website: <http://www.waterphilippinesexpo.com>

B. Renewable energy resources:

1. POWER & ELECTRICITY WORLD PHILIPPINES

Annual Congress of Power Industry Professionals. This trade fair brings together government officials, professionals in the field of power, investors, and solution providers to allow new business opportunities and connections to be made. (Power Philippines, Ltd. 2016)

- a. SMX Exhibition and Convention Center
- b. 24.05 - 25.05 2017
- c. Terrapinn Holdings Ltd (United Kingdom)
- d. Email: enquiry.uk@terrapinn.com
- e. Website: <http://www.terrapinn.com/exhibition/power-electricity-world-philippines/index.stm>

2. THE SOLAR SHOW PHILIPPINES

This is the largest solar energy show in the Philippines and the entire Philippine sector comes together to discuss the future. This show offers unequalled opportunities to forge business relationships and access new potential partners. (The Solar Show Ph, Ltd. 2016)

- a. SMX Exhibition and Convention Center
- b. 24.05 - 25.05 2017
- c. Organizer: Terrapinn Holdings Ltd (United Kingdom)
- d. Email: enquiry.uk@terrapinn.com
- e. Website: <http://www.terrapinn.com/exhibition/the-solar-show-philippines/index.stm>

3. ASEAN SOLAR + ENERGY STORAGE CONGRESS & EXPO

Participants from governments, utilities, independent energy producers, energy storage products manufacturers, consulting companies, associate as well as other related sectors are invited to together discuss applications, opportunities and challenges for solar and energy storage development in ASEAN market. (Puyuan, 2016)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- a. Bellevue Hotel Manila
- b. 05.12 - 06.12 2016
- c. Organizer: Leader Group (China)
- d. Email: info@leader-xtet.com
- e. Website: <http://www.aseanenergystorage.com>

4. RENEWABLE ENERGY AND ENERGY EFFICIENCY PHILIPPINES

3 day event that highlights ways to attain alternative energy advancements. This event will have top practitioners from the industry and some government officials for building new partnerships and more proactive business opportunities. (Center, 2017)

- a. SMX Convention Center, Manila
- b. March 22-24, 2017
- c. Organizer: UBM Asia
- d. Tel: +63 2 551-7803 / 551-7564 / 551-7718
- e. Email: info-hk@ubm.com
- f. Website: <http://events.ubm.com/event/3487/renewable-energy-and-energy-efficiency-philippines--2017>

5. ENERGY AND POWER SUMMIT PHILIPPINES 2017

Features the latest updates on the regulatory policy, future infrastructure development planning, investment opportunities, funding schemes as well as state of the art technology within the Philippines' Energy & Power Industry, under the Rodrigo Duterte Presidency. (Energy and Power Summit Philippines, 2017)

- a. Manila, NCR
- b. Jan. 17-20, 2017
- c. Organizer: Terrapinn Holdings Ltd (Singapore)
- d. Email: enquiry.sg@terrapinn.com
- e. Website: <http://www.equip-global.com/energy-and-power-philippines-summit-2017>

SEA / OCEAN:

1. AQUACULTURE PHILIPPINES

This trade show meets professionals in the field of aquaculture (farming of fish, crustaceans, molluscs, aquatic plants, algae, and other aquatic organisms) with access to buyers and suppliers in the industry. (Aquaculture Philippines, 2015)



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

- a. SMX Convention Centre
- b. 24 May 2017 - 26 May 2017
- c. Organizer: UBM Exhibitions Philippines, Inc.
- d. Email: info@ubmphilippines.com
- e. Website: <http://www.livestockphilippines.com/About-Us/Aquaculture-Philippines>

OIL:

1. OIL & GAS PHILIPPINES: TRADE SHOW

The only specialized Oil & Gas and Offshore event in Philippines that brings together an international congregation of Oil & Gas companies, Oil & Gas contractors, Oil & Gas technology providers and also its supporting industries gathered in the capital of Manila, to showcase the latest developments in the Philippines' Oil & Gas industry. (Neventum, 2017)

- a. SMX Convention Center, Manila
- b. July 12-14, 2017
- c. Organizer: FIREWORKS TRADE EXHIBITIONS & CONFERENCES PHILIPPINES, INC.
- d. Tel: (+63) 92770 40888
- e. Email: phil@asiafireworks.com
- f. Website: <http://www.ntradeshows.com/oil-gas-philippines/>

AGRICULTURE:

1. DATE - DAVAO AGRI TRADE EXPO 2017

It aims to bring together global and national agricultural experts that will provide essential ideas & networks that will contribute to Mindanao's sustainable agriculture industry. (Expo, 2017)

- a. 21 Sept 2017 - 23 Sept 2017
- b. SMX Convention Center Davao
- c. Organizer: Davao City Chamber of Commerce and Industry, Inc.
- d. Email: info@davaochamber.com
- e. Website: <http://davaotradeexpo.com>



19F Philippine AXA Life Centre
Sen. Gil Puyat Ave., cor. Tindalo St.
Makati City, Metro Manila, 1200 Philippines
Tel. Nos.: (63 2) 845 1324; 759 6680
Fax Nos.: (63 2) 845 1395; 759 6690
Email: info@eccp.com
Website: www.eccp.com

2. INAHGEN 2018

International Animal Health, Genetics and Nutrition Congress & Expo. This wide trade show event is dedicated to all the farmers, breeders, feed millers, meat processors, feed ingredient suppliers, animal health products suppliers, farm and slaughter equipment suppliers, package suppliers, agribusiness book and magazine publishers in the country, and of course to all who wants to join the poultry and livestock industry. (Today, 2014)

- a. SMX Exhibition and Convention Center
- b. Feb. 2018
- c. Organizer: PVDA (Philippine Veterinary Drug Association)
- d. Tel : 632-687-7752
- e. Email: inahgen@gmail.com
- f. Website: <http://www.exhibitstoday.ph/2016/03/6th-inahgen-farmers-congress-2016.html>